

# ANNOTATED BIBLIOGRAPHY:

Review of Health Reform Activities in Zhezkazgan Oblast, Kazakhstan

December 1998

Prepared by Kate Horst for Zdrav*Reform* Program

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# Evaluation of Health Insurance Demonstrations in Kazakhstan: Dzheskasgan and South Kazakhstan Oblasts July, 1994

#### J. Langenbrunner and I. Sheiman

After representatives from USAID and Abt Associates met with health policy leaders in Kazakhstan in December 1993, there was strong interest in examining two demonstration areas in Kazakhstan where new health insurance financing and payment policies either had been implemented or were planned.

This report summarizes an evaluation of these health insurance demonstration activities in April 1994. Four areas related to health insurance and related health policy changes were examined:

- The Adequacy of Financing: To what extent a new employer payroll contribution and other sources of revenue would ensure adequate financing of the health care system.
- Changes in Efficiency: The effect of the health insurance structure and related payment policies and organizational changes on the efficiency with which services are provided.
- The Impact on Quality of Care: The effect of changes in financing, payment, and quality assurance programs on the quality of service delivery and ultimately on health status.
- The Equity of Access to Care: The effect of the new system on what was one of the strengths of the old system relative equity of access to services by various socioeconomic groups.

#### Introduction

Under the Soviet health care system, Kazakhstan has enjoyed a tradition of universal access to health care services, as well as considerable investment in curative medicine, prevention, and water and sanitation, which have been beneficial to the general health of the population. Over the last five to ten years, however, socio-economic and environmental problems have severely strained both the health of the population and the health care system.

Specifically, the share of the region's GDP devoted to health has declined precipitously since the 1980's, falling from 6 percent of GDP to just over 3 percent for the NIS as a whole. In Kazakhstan, spending as a percent was 3.3 percent of GDP in 1990, but it is estimated to have dropped in real terms to 1.6 percent in 1992.

Furthermore, the Soviet approach to health care delivery did not encourage the efficient use of resources by providers. This was due in part to the fact that the system allocated resources based on traditional production-input measures, such as occupancy rates and numbers of staff and beds, rather than on actual services provided, the relative complexity

of those services, or changes in health outcomes. Overall, a relatively high share of resources are allocated to more expensive inpatient care (73.8 percent in 1992).

As a result, a number of local geographic areas have moved to change the financing and structure of health care delivery. The reforms were first initiated in 1989 when the so-called New Economic Mechanisms were announced and approved in Moscow under the former Soviet structure. The NEM provided for greater local autonomy and established a number of demonstration sites in each of the republics, focusing on restructuring of financing, organization and management restructuring through greater autonomy and management systems, and improved technical efficiency in the delivery of care through improved payments for services.

In April 1990, under a new minister in Kazakhstan, the NEM demonstration sites had been cancelled, but the general principles of NEM had taken root in an estimated third of the country in terms of greater flexibility of resource allocation, payments to personnel, and some limited management restructuring approaches. In 1992, the Council of Ministers established three oblasts as health sector demonstration areas- Dzheskasgan, South Kazakhstan, and Kokchetau - extending greater flexibility in terms of financing, payment, and organization of care.

One area of Dzheskasgan oblast - the so-called Zhairem-Atasou Free Economic Zone - has been conducting a health insurance demonstration since the beginning of 1993. The FEZ includes the towns of Karajal and Zhairem. A state-owned MHI organization has been established by the local health care providers and other authorities pooling revenues from three sources: traditional government budget allocations for health care services; new payroll contribution from employers, currently set at 5 percent; and other revenues from donations. The MHI has also developed new payment methods and a quality assurance program. The MHI has become both a collector of revenues and a prudent purchaser of services, bringing together greater stability and sustainability of funding, efficiency, and improved quality.

#### Status of the Current Demonstration Activities

The towns of Karajal and Zhairem are located within the Zhairem-Atasou Free Economic Zone, a designation which allows greater local autonomy through the local Administrative Council. The FEZ status also allows some variation from the federal tax code. The health insurance fund was initiated and implemented at this FEZ level, with approval at the oblast and central levels of government.

#### New Economic Mechanisms

The reforms were begun at the local level by the territorial medical organization (TMO) when the New Economic Mechanisms were announced. The NEM were later discontinued at the national level but were continued in the Karajal-Zhairem area because of local interest and initiative by the TMO. The TMO restructured the financing and mechanisms for payment of health care in several ways (details outlined in full report).

The new draft law enacted by the parliament in early 1992 set out the concept of health insurance funds and called for implementation by January 1993. The TMO undertook to establish its own Mandatory Health Insurance Fund in the FEZ. The MHI was in place by the end of 1992, and implementation occurred in March 1993. The new structure changed the organization and payment of care in several important ways:

- Creation of a new MHI separate from the TMO separated the collection and management of funds from the actual delivery of health care.
- Creation of a new source of revenue through a 5 percent payroll contribution from all employers.
- Creation of a standard benefits package of covered services.
- Changes in quality assurance, with the establishment of several hundred diagnosis specific treatment protocols by local medical teams
- Changes in the method of inpatient care to result in a more refined case-mix payment system.
- Protocols developed for quality assurance including standards for hospital lengths of stay.
- Changes in the payment method for outpatient care from the primary care group "fund-holders" to a fee-for-service approach, using a fee schedule based on complexity, average time, and input costs.

To date, participation in the MHI has been mainly limited to large firms and only 8 percent of companies with less than 100 employees currently participate. However, the large employers that do participate employ the vast majority (78%) of workers in the area.

#### The following **FINDINGS** and **RECOMMENDATIONS** were reported:

#### FINANCING

Total funds available for health care in 1993 were almost 20 percent higher than in 1990. This increase in funding was a result of the implementation in March 1993 of the payroll contribution. However, there is less than full participation by firms, especially smaller ones, and the contributions are not made in a timely manner. Part of this problem stems from a high current tax burden, poor collection methods, and general macroeconomic conditions. Additionally, government payments have historically been erratic. Future payments for specified population groups must be more predictable to allow for health sector planning and necessary organizational changes

Simulation analyses led to the conclusion that the MHI should not depend solely on a payroll tax to finance health insurance because an additional tax could negatively affect capital formation given the already heavy tax burden on companies in Kazakhstan. Also, the experience in the FEZ area has been that compliance with the tax among employers is quite low (13 percent) even though the FEZ is an area where such a payroll tax should be most effective because most workers are employed by a small number of large firms that can easily be identified and monitored. Improvements in the efficiency of health care delivery could lead to significant savings, which would substantially reduce dependence on the payroll tax for financing of the system.

#### **EFFICIENCY**

Two types of efficiency were measured: allocative efficiency (the use of funds across settings) and technical efficiency (the use of funds within specific provider settings, such as a polyclinic or hospital)

#### Allocative Efficiency

Analysis of allocative efficiency indicated a positive change from 1990 through 1993:

- The share of visits to primary care physicians (therapists, obstetricians, and pediatricians) increased from 37.2 % in 1990 to 51.7% in 1993. For pediatricians, the share of visits rose from 12.4 to 23.0%.
- The ratio of primary care to specialists in polyclinics increased form 1:5.2 to 1:2.6.
- The number of hospital admissions in Karajal decreased by 26%, with a corresponding increase in outpatient visits of 14 percent.
- The ratio of outpatient visits to hospital admissions increased from 26:1 in 1990 to 41:1 in 1993.
- The total number of hospital beds decreased by 32%, a reduction caused by a shift in beds from inpatient care to a new day-care center for palliative care. The ratio of beds per 1000 population dropped about 30 percent.
- Hospital admission rates as a whole decreased from 31.5 to 23.9 per 1000 population, a decrease of 24 percent.

Bed capacity, however, is still higher than western countries. Hospitals continue to admit simple cases that could be treated on an outpatient basis. 35 percent of inpatient cases with diagnoses of respiratory disease, viral infections, and mental disorders could have been treated on an outpatient basis. Furthermore, the percentage of patients referred to hospitals for inpatient care on their first visit to a polyclinic is still far too high at about 30 percent. Finally, the fact that pharmaceuticals are covered only in inpatient settings, with full copayment required in outpatient settings, may skew incentives for care: physicians may refer people to hospitals where drugs are provided free when outpatient treatment might be more appropriate.

#### Technical Efficiency

Results from the analysis of technical efficiency demonstrated that the number of hospital admissions declined by 26 percent, and the average length of stay has shown a general, though very slight downward trend. The absence of a significant decline may be due to relatively weak incentives to discharge hospitalized patients before the bed-day payment cap is reached. Although the number of occupied bed-days increased from 224 to 313, the level remains below the standards set by the federal Ministry of Health. Furthermore, hospital productivity appears to have decreased due to the inflexibility of hospital managers, who have failed to cut staff in response to drops in admissions and changes in case mix.

#### **Conclusions**

Based on these observations, the following conclusions can be made about efficiency in the health sector:

- New methods of financing, payment, and management promoted structural changes that point to increased cost-effectiveness in the delivery of care.
- Changes in technical efficiency are less positive, due to the inflexibility on the part of hospital management in regrouping resources in response to demand.
- The influence of the NEM on allocative efficiency may be more significant than the transition to the MHI demonstration phase.

#### QUALITY OF CARE and EQUITY OF ACCESS

There was some evidence that quality of acute care has improved to some extent since 1990. Three factors suggest this:

- There have been increases in staff salaries and incentive bonuses resulting in improved morale, improved team activity, and greater interest in improving professional knowledge and skill.
- Quality-assurance activities and the use of provider penalties may contribute.
- More specialized care facilities are used rather than hospitals. Up to 35 percent of hospitalized patients could be moved to day-care centers for palliative care.

From the survey results there is some evidence that access to care has not deteriorated for specific socio-economic groups such as women, children, the poor, the elderly, and the disabled. Such improvements have been offset, however, by a deterioration in the availability of equipment, supplies, and pharmaceuticals. Also, preventive services do not seem to be increasing, and there is evidence that some are decreasing, especially vaccinations and contraception services. Yet there is some evidence of improvement in access to care and patient satisfaction, as measured by consumer surveys and by waiting times for physicians and laboratory tests.

#### **CONCLUSIONS**

The Dzheskasgan oblast demonstration area can serve as a model for general health care reform in Kazakhstan. The general approach could first be extended throughout the oblast and then implemented on a national level.

To strengthen the existing demonstration models, especially in the context of national reform, a series of 40 recommendations and options for action have been developed in these four areas. Several areas for potential short-term technical assistance also have been identified, including development of an improved legal framework for innovative demonstration sites, intensive training activity, and model hospital cost and information systems.

#### APPENDICES

- APPENDIX A: Health Financing Simulation Model
- APPENDIX B: Analysis of Activities of the Health Care Facilities in the Atasou-Jairem Free Economic Zone
- APPENDIX C: Efficiency Analysis of the Activity of Health Institutions in Karajal in the Conditions of Reformation of the Medical Assistance Provision for the Population
- APPENDIX D: Quality and Access Survey Instrument for Administrators and Physicians

#### • APPENDIX E: Scope of Work

#### **EXHIBITS**

- 1.1 Data on Kazakhstan and Selected Comparison
- 1.2 Referral Structure in the Health Sector in Kazakhstan
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- 3.1 Health Care Revenues by Source, Free Economic Zone (Dzheskasgan Oblast)
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- 4.3 Inpatient Cases by Diagnostic Categories in Hospitals in Karajal, 1990-1993
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- 4.5 Rate of Hospital Admissions per 1,000 Residents in FEZ, 1990-1993
- 4.6 Hospital Utilization in Karajal, FEZ, 1990-1993
- 4.7 Actual and Weighted Admissions by Diagnostic Group, Karajal Hospital 1991-1992
- 5.1 Ratio of Average FEZ Medical Staff Salaries to Federal MOH-Recommended Salaries
- 5.2 Survey Results of Physicians and Administrators on Changes in Quality and Access to Care since Initiation of Health Insurance Demonstration (February 1993)
- 5.3 Preventive Services Provided in FEZ Demonstration Area, 1990-1993 (Number of Services Rendered)

#### **ANNEX TABLES**

- A.1 Cost by Item
- A.2 Revenues by Source
- A.3 Hospital and Polyclinic Utilization and Medical Statistics
- A.4 List of Variables in the Scenario Template
- A.5 Kazakhstan (FEZ) Scenario Worksheet
- A.6 Cost and Revenue Forecast under Hypothetical Scenario
- A.7 Sample Unit Costs

# Trip Report and Work Plan Options for Dzhezkasgan Oblast August 23-September 3, 1995 Gary Gaumer

The main **OBJECTIVE** of this consultancy was to assess the potential for specific kinds of reform in Dzhezkazgan Oblast and to prepare strategies for ZdravReform Program technical assistance.

Dzhezkazgan Oblast is a vast, largely unpopulated and desolate territory north and west of Almaty in the center of Kazakhstan. While the region has been subject to health reform experimentation in the form of the Free Economic Zone program, the formation of the MHI Fund in December 1994 is the proximate force in the program now underway. The Fund began collecting premiums in April 1995 and began paying healthcare providers on July 1, 1995. At that time payment programs for both hospital and polyclinic services were initiated, as was a private family practice. Formation of several private clinics and expansion of the family practice program will be implemented on September 1, 1995. Other plans have been temporarily suspended, awaiting the resolution of the status of the hospital and infirmaries of the copper plant.

The main reforms that now are in place today in Dzhezkazgan Oblast include the following **FINDINGS**:

1. An operational Mandatory Health Insurance Fund is established which combines budget and employer-contributed premiums and operates as single payor. The functions of the fund are to allocate pooled resources across regions and providers and to establish single payor payment policies that promote efficiency. Premiums are paid by employers by means of a 5.5 percent payroll tax, which will become mandatory starting in January 1996.

Premium receipts are pooled with budget funds, which are received in capitation allowances from the Ministry of Finance to pay for the care of the nonworking and special populations, now calculated to be 1340 Tenge/month. About half of the people are to be provided health care via budget funds.

The final funding level is about 60 percent of the full funding level. Since this factor is applied to base period budget levels for providers to calculate the next month rate base, the MHI Fund is passing the premium shortfalls to providers. In addition, the adjustment factor based on premium contribution compliance is recalculated every month, causing the rates to vary month to month.

2. A new formula for allocating the uncollected premiums across rayons and Oblast providers was devised. The new formula allows each rayon to keep 75 percent of the collected premiums from that rayon in the rayon rate base, and allocates the remaining 25 percent of total premiums to all providers on the basis of bed days in the prior year.

3. A central objective is independence of medical practice and the improved economic status of physicians. No direct privatization has occurred, though independent provider entities are being established. This forces competition, and the successful providers will be paid more.

The MHI Fund has established autonomous business status for all providers with whom they do business. This includes some form of registration process and a banking account. On September 1 there will be one private family practice and one private cardiology clinic practice. Several other independent, but not private, practices also exist.

The pace of privatization is a point of tension, as the Fund is pressuring to move reforms quickly, while the Department of Health prefers to be more deliberate. Although the Fund is an independent entity from the DOH, it is restricted by law to do business only with providers that are licensed by the DOH. Thus, the licensing authority of the DOH gives it authority over the pace of implementation of private and independent practice initiatives.

- 4. Since July 1, 1995, hospitals are paid prospective per diem rates on the basis of bed days generated each month. They submit a manually generated bill itemizing each patient which is paid by the MHI. Each bed-day rate is computed on the basis of 1994 budget levels for each rayon and for each facility operated by the Oblast. Within a given rayon, each bed-day will be paid the same amount regardless of the type of patient or which facility the patient was in. Hospital clinic visit rates were similarly computed and billed, though the basis for rates is only the salary chapter costs. These rates are also prospective and are the same across facilities within rayons.
- 5. There is a quality assurance system for inpatient care that has linkages to payment in the form of penalties. An internal review occurs in each facility, followed by the MHI reviewers' examination of a sample of at least 10 percent of the discharged cases each month. Penalty structures are aimed at rating the quality of care as well as the appropriateness of admissions.
- 6. An independent, private family practice in Dzezkazgan city is set to start on September 1, 1995, along with three other independent, but not private, family practices. Three other family practices are being prepared for implementation the following month.
- 7. Two other private group practices are also about to become operational on September 1, 1995. One is a Cardiology Hospital and Clinic, and the other is a Reproductive Health Clinic. A third practice, a 10 person multi-specialty group practice clinic may be starting private operation in September as well.
- 8. User fees are being charged in the Oblast. In Zhezdy a patient is required to pay a 10 tenge co-payment for a polyclinic visit, and a hospitalized patient pays a 10-15 tenge co-payment for each day of their stay.

#### **ANNEXES**

- Activities
- ANNEX A: Scope of Work
- ANNEX B: Proposed Work Plan for Zhezkazgan. Three options are outlined for possible ZRP support activities in the short term, including a privatization support option, a hospital reform support option, and a physician payment reform option.

#### Option 1: Focus on roll out assistance for *Privatization*.

- 1. Evaluate the Impacts and Program Improvement Potential for the FGPs.
- 2. Roll out plan development.
- 3. Roll out Assistance for FP.
- 4. Evaluation and Program Development Assistance for a Permanent FP Program.
- 5. Cardiology and Neonatology Clinic Evaluations and Program Assistance.
- 6. Roll out Assistance for Cardiology, Neonatology, and other specialty clinics.
- 7. Independent Practice Infrastructure Development.
- 8. Hospital and other Institutional Cost Determination.
- 9. Evaluation of the Change in Payment Methods.
- 10. Organizational Support of the MHI Fund.
- 11. Payment Methods Workshop.

#### Option 2: Focus on Hospital Rationalization.

- 12. Evaluation of the quality standards and penalty system.
- 13. Developing Case Studies of Hospital Self-Rationalization Programs
- 14. Design a per case payment method.

#### Option 3: Focus on the problem of *Payment for Physician Services*.

- 15. Develop options for paying polyclinic physicians and non-surgical activities.
- 16. Physician payment methods workshop and implementation training.
- 17. Evaluation and Roll Out Plan for the Physician Payment Methods.
- 18. Design an Experimental Plan for Partial Fund-holding for FGPs/Polyclinics.
- 19. Provide implementation assistance on the Fund-holding experiments.
- 20. Evaluation and Roll out of the Fund-holding experiments.
- ANNEX C: 1995 Rate Computations and Provider Bills
- ANNEX D: Cost Data
- ANNEX E: Successful Privatization of Health Care in Dzhezkasgan Oblast

# Assisting Systemic Change in the Health Care System of Zhezkazgan Oblast, Kazakhstan Spring 1996 (Russian and English) Alexander Telyukov

(From: "Current Developments in the Health Care Reforms in Kazakhstan and Kyrgyzstan," March-April, 1996, Alexander Telyukov)

This report is a concise description of the essential features of the Zhezkazgan reform plan and Progress Evaluation in the areas of MHI-Based Financing, MHI Benefit Package, Delivery of Care: Incentive-Driven Restructuring, Delivery of Care: Restructuring by Administrative Measures, and Methods of Provider Reimbursement. Suggestions for possible ZdravReform technical assistance are outlined in the full text after each topic discussion.

#### A. MHI-Based Financing

The MHI is indeed in place, however current funding capacity of the MHI system is still insufficient for the MHI to become operational. As of the first quarter of 1996 the city and rayon budgets contributed only 27 percent of what was due in health insurance premiums for non-employed populations. Employer compliance was only 17 percent. Compliance rate for the whole public/private mix is thus reported at 22 percent. Dr. Rakhypbekov recognizes that the issue of non-cooperation on the part of the local governments is a significant problem in health policy reform. Low employer compliance may be related to the fact that many enterprises are not formally liable for paying MHI premiums since they could evade entering into contractual relationships with the Fund. There is hope that this problem will be partially resolved as the Fund's Deputy Director (Lyubov Tarasova) recently signed a contract with the Copper Plant, the oblast's largest employer.

#### B. MHI Benefit Package

Most of the personal health care services were integrated into the Territory's MHI Base Program, the benefit package subject to reimbursement from health insurance premiums. Review of the MHI basic benefit package revealed that all outpatient care except occupational check-ups is included. Inpatient care is also included, excluding routine nonsurgical cases. In Zhezkazgan dental and emergency care are included, while at the national level these services are largely excluded from MHI coverage. Outpatient prescriptions are excluded, however inpatient drugs are covered by MHI as long as they are included in the Oblast Inpatient Formulary, which was developed for the oblast by ZdravReform.

Public health programs are funded directly from the oblast budget. Public health priorities have been selected based on local risk factors. Specifically, Child Delivery, Pediatric Care, Cardiology, Preventive Immunizations, Tuberculosis, and Disease Control and Epidemiological Surveillance are defined as targets for direct on-budget funding. As a result of these special programs, recent data has shown that there has been a decline in the

incidence of neonatal infectious diseases by a factor of three; the incidence of intestinal infection among infants has been reduced; and the incidence of TB came to a plateau.

#### C. Delivery of Care: Incentive-Driven Restructuring

As of April 12, 1996, Zhezkazgan oblast has 93 outpatient facilities, 45 hospitals, 128 feldsher-midwife posts, 59 enterprise-based offices, and 3 private practices. In addition to facilities for the general public, there are also health care networks with targeted eligibility operated by the Interior Administration, the National Security Committee, and the Ministry of Railroad Transportation. The health care sector currently employs 1488 physicians and 5384 mid-level health personnel. Until recently, approximately 70 percent of operating funding has been allocated to the hospitals. The proportion of inappropriate admissions was assessed to be 50 percent. The average length of stay in 1995 was reported at 17.3 days.

Since summer 1995, a network of 46 autonomous FGPs was set up (22 in the city of Zhezkazgan, 17 in the city of Balkhash, and 7 in Satpayev). According to OHA plans, the network of FGPs will take its final configuration by May 1, 1996.

The OMHIF as a single purchasing authority in the oblast provides funding to FGPs, with a capitation rate as the main tool of resource allocation. The population is entitled to open enrollment, and the capitated funding will follow the enrollment patterns. The FGP will operate as comprehensive fundholder with the authority to subcontract with secondary and tertiary care providers. FGPs will keep the surplus portion of the capitated rate if there are savings through cost-conscious spending without a negative impact on quality. They will also assume financial risks associated with over-spending and low enrollment. Inherent in this system are incentives for moving care to the outpatient setting, placing emphasis on prevention, and selecting the most effective and efficient subcontractors.

# D. Delivery of Care: Restructuring by Administrative Measures

Bold administrative steps towards structural change are being taken in an attempt to accelerate and enhance the rationalization of the health care sector. In the first quarter of 1996, hospital bed capacity was reduced by 806 beds and the number of hospital personnel was decreased by 2203 positions (13.2 and 16.3 percent, respectively). The oncology dispensary was closed, and oncology beds were transferred to the Oblast Teaching Hospital. Additional facilities that were closed as part of this rationalization process include the Oblast Dental Polyclinic, a Children's Polyclinic, and the Oblast Dispensary for Dermatologic and Sexually Transmitted Diseases. All assets from these closures were transferred to the State Asset Committee. Efforts to reduce fixed costs included enforcement of electricity, heat and water meters in medical facilities and shifts to price-competitive utility companies. Through this plan of administrative rationalization savings in the first quarter of 1996 amounted to 40 million tenge, which covers 27 percent of the health budget deficit projected for 1996.

#### E. Methods of Provider Reimbursement

Fundholding FGPs will reimburse participating outpatient providers on a fee-for-service basis with the relative value scale being periodically recalibrated according to the

availability of resources in the financial pool. Hospitals will be paid per patient discharge. The monetary equivalent of unit intensity will be set in a budget neutral way and periodically adjusted for the global hospital budget constraint.

- 1. Outpatient sector. A twenty-three page methodology Manual was written to guide financial administrators through the development of an outpatient fee schedule. On April 12, this methodology was taught in a three hour workshop presented to chief doctors, economists, and accountants of almost every FGP, polyclinic, and hospital in the oblast.
- 2. <u>Inpatient sector</u>. The inpatient hospital network is being transferred to case-based reimbursement. A detailed explanation of gradual rate equalization and weighting ratio for hospital-specific and territory average costs is outlined in the full text. A casemix rating experiment is scheduled to begin in June-July 1996.
- 3. <u>Capitation Rate</u>. To calculate the capitated rate, the total amount of reported or planned spending on the MHI benefit package was divided by the number of residents in the community. The question of risk-adjustment needs further work.
- 4. <u>User Charges</u>. The consultant cautioned Dr. Rakhybekov against hastily introducing user charges since equitable access may be affected without visible gain in terms of health financing. Many options should be considered to apply this in a systematic way.

**ANNEX:** Methodology for Development of Outpatient Fee Schedule (in Russian)

### Payment Systems in Dzhezkazgan Oblast June, 1996 Michael Borowitz

This document summarizes the health reform efforts in Dzhezkesgan Oblast.

#### Hospital Payment

The current method of hospital payment is per diem. Hospitals submit a bill for every patient, and they are paid according to the total number of days. This rate appears to be facility specific. Currently, they are paying only 60% of the calculated per diems. For the Central Rayon Hospitals, the per diem includes all SVAs, FAPs, and the polyclinics. The SES and Central Accounting Offices are paid separately.

#### Case-Based Payment

Data for all the hospitals has been collected, however none of the individual-level data being submitted for the per diem system has been entered. Thus, there is no database for analysis.

Analysis of the available data revealed several problems. There is significant variation in cost between rayon, city, and oblast facilities. The Oblast hospital costs are generally 3 to 5 times the costs of rayon facilities. It is unclear whether this difference is due to differences in complexity of treated cases or whether it is due to inefficiencies of the system.

#### Infectious Disease

There are infectious disease departments in four CRH, the Oblast hospital, and a city provider. The CRH are the least expensive, followed by city providers, with the Oblast hospital as an outlier. Pediatric infectious disease was significantly more expensive. It was decided, however, to simplify the system by merging adult and children infectious disease departments.

There is more limited data, however, for other departments, including Cardiology, Neurology, Mother's Pathology, Gynecology, New Born Pathology and in the Oblast hospital the departments of Hematology, Endocrinology, Maxillo-Facial Surgery, Neurosurgery, and Pediatric Surgery. The Neonatology department was considered to be too expensive and was eliminated.

Concerning dispensaries, the fund claims that tuberculosis and psychiatry are consuming one third of its budget. However, for political and cultural reasons, these dispensaries cannot be merged into other hospitals. The question of payment for these facilities remains a difficult question. Potential solutions to this problem include ensuring adequate supply of drugs and hospitalizing for a shorter course of treatment.

The Fund has determined that the main reasons for the high expenses of the Oblast Hospital are the high heating costs and inefficient departments. The solution they came up with is to use the planned number of cases and derive lower costs per case.

The topic of Intensive Care was the most complex. One method of payment would be to allocate it to departments similar to paraclinical departments in the step-down cost accounting system. ICUs, however, are in a large number of facilities, but not all. By removing payments to ICU, the case weight or base rate would be increased across all providers and not specifically targeted at providers with ICUs. In order to not pay ICUs directly, but target hospitals with ICUs, there would have to be differential payment rates, which is inconsistent with the general strategy to maintain stable payments across providers. A second option would be to establish a per diem rate for ICUs and then pay per day. However, it would be extremely difficult to monitor given that the rate would be very high. A third option would be a fixed add-on payment for each ICU admission. ICU admission would then be closely monitored by the fund and detailed criteria would be developed for admission to the ICU based on ICD-9 codes. This option appears to be the best method. It was also decided not to distinguish between adult and pediatric ICU.

The level of incoming funds has been variable in Zhezkazgan. This makes it difficult for hospitals to make long-term decisions. Currently, payments are lowered according to an adjustment factor if the fund collects less than the planned budget. An alternative would be to set a realistic base rate for a period of six months. Given the unpredictability of volume changes, the fund should have reserve funds.

# Roll-Out of Financial and Organizational Reforms: Zhezkazgan Oblast, Kazakhstan. Follow-Up Visit July 8-12, 1996 C. Wickham and A. Danilenko

The **OBJECTIVES** of this follow-up consultancy were 1. To continue the refinement of the hospital payment system, which included constructing a hospital financing pool, establishing the base rate for the case-based payment system, monitoring the progress of the patient level hospital data system, and conducting simulations of the new hospital payment system using available patient level data; 2. To discuss the steps required to develop a capitated outpatient payment system, including construction of an outpatient services financing pool, preparation of a methodology for separating SVA and FAP financing from Central Rayon Hospital payments, construction of a fee schedule for outpatient specialty care, preparation of budgets for family group practices, and determining age and sex composition of urban and rayon populations for risk-adjustment factors; 3. To initiate work on a family group practice public information and enrollment campaign; and 4. To document the accomplishments of and obstacles to health reform in Zhezkazgan oblast.

#### The following **FINDINGS** and **AGREEMENTS** were reported:

- At the request of Telyukov and Borowitz in previous visits, the Finance and Economics Department assembled information about the distribution of 1995 total health expenditures between inpatient and outpatient facilities, created a schematic of rayon-level facilities, and calculated the total projected health funding pool for 1996. In developing capitated rates for the outpatient payment system, 30 percent of oblast per capita health fund has been allocated to outpatient care, with 10 percent of the total intended for primary care. However, a systematic approach to resource allocation across types of care needs to be worked out. Although the requested data was collected as part of the fee schedule methodology outlined by Telyukov, there were additional questions about how to proceed with the analysis and development of the fee schedule.
- Dr. Rakhipbekov, Head of the Oblast Health Administration, is committed to moving forward quickly with a fundholding payment system for family group practices, but there is still a need to develop realistic budgets for FGPs, a simple fee schedule for outpatient diagnostic services and specialty care, a referral tracking system, and an enrollment campaign for FGPs. He agreed to identify two FGPs for an experimental "paper" fundholding payment system and to hire two practice managers to assist with setting up financial management and clinical information systems.
- A Budgeting and financial management workshop for new practice managers and FGP physicians is planned in August.
- A facility coding system will be developed as part of a referral tracking system.
- ZdravReform will make recommendations on a fee schedule for outpatient specialty care and diagnostic services
- A working group will be established to carry out the family group practice public information and marketing campaign.

- Although steps are being taken to register SVAs and FAPs as independent legal entities, the process is slow because there is a fee of 7,900 tenge for each facility.
- Dr. Rakhipbekov readjusted the weight coefficients for simplified groups and set a
  base rate of 6620 tenge. The new hospital payment system reportedly had been
  formally adopted as of April 1, 1996, but facilities were only paid advances which
  will be adjusted according to actual cases once the data for the previous three months
  (April, May, June) is analyzed.

The problem of separating rural outpatient financing from the per diem payments currently received by the Central Rayon Hospitals was discussed, as well as the topic of budget neutrality and arguments against the artificially high base rate.

In Zhezdi rayon, how funding from the Central Rayon Hospital is allocated to outpatient facilities was reviewed, and the methodology for computing the division between inpatient and outpatient funding for 1995 that was reported by the CRH to the MHIF was discussed. The CRH receives a per diem rate from the MHIF of 272 tenge, though their calculated needs were 491 tenge per bed-day. Overall, there was a general lack of financial information and record-keeping in the CRH finance and economics departments. The CRH economist had incomplete records on monthly expenditures by facility and there were no ledgers or records of aggregate expenditures. There were no records or financial reports demonstrating allocations of funds between the facilities of the rayon. It was reported that salaries of polyclinic staff and supplies are attributed directly to the polyclinic; 30% of paraclinical services provided by the CRH is attributed to the polyclinic; and while the cost of heat is allocated according to space, the polyclinic has its own meter for electricity. The costs of SVAs, FAPs and SUBs are allocated according to formulas based on salary, which is paid directly to the facilities.

An outline of **NEXT STEPS** for the hospital payment system, outpatient payment system, and the family group practice public information campaign was created.

#### **ATTACHMENTS**

- 1. Report on the Assessment of Market Channels in Zhezkazgan
- 2. Zhezkazgan Health Expenditures, 1995
- 3. Schematic of Rayon Level Facilities
- 4. Composite List of Procedures and Specialists for Development of Fee Schedule for Outpatient Specialty Care and Diagnostic Services
- 5. List of Readjusted Weight Coefficients and Base Rates for Inpatient Payment System
- 6. Records on Monthly Expenditures by Facility

# Update on Kassa Zdorovia and Family Group Practice in the Issyk-Kul Oblast, Karakol, Kyrgyzstan and FGP Developments in Zhezkazgan Oblast, Kazakstan August 4-24, 1996 George Purvis

The **OBJECTIVE** of this consultancy was to assist with the development of a business plan training for the new FGP physicians and economists. A training workshop was conducted for FGPs in Zhezkazgan on how to develop strategic, operating, and business plans for Family Group Practices. Key issues discussed during the workshop were:

- The need to develop and implement a clinical information systems and data sheet with workload information and ICD-9 disease information as a critical step for tracking referrals
- The need to begin to interview for and hire Practice Managers for the new FGPs
- The need to establish an accounting system including new expense items
- The need to continue to renovate, upgrade and refurbish the FGP offices
- The need to purchase instruments and equipment for the FGPs
- The need to pay salaries on a more regular basis.

A proposed workplan is included covering both short term and long term plans in the areas of Accounting, Finance, and Information Systems in order to fully operationalize the FGPs over the next several months.

An evaluation questionnaire with four key questions was distributed at the conclusion of the workshop. Key questions addressed the Relevancy of the material to the situation, Quality of the material, Performance of the instructor, and Overall Rating for the workshop. A summary of the participants' comments on the financial management workshop is included.

#### **ANNEXES**

- 1. List of participants in Financial Management Training Workshop, August 16-17, 1996
- 2. Agenda for FGP Workshop:
  - Strategic Thinking in the New Environment
  - The Changing World Situation in Health Care Alternative Payment Systems
  - FGP Business Planning and Management
  - Key Issues in FGP Development

# Zhezkazgan Oblast, Kazakstan: Urban Primary Care Initiative. Proposal to Soros Foundation, Open Society Institute, Health Care Initiatives 1996. September 10, 1996 (English, Russian)

This document is a Grant Application to the Soros Foundation requesting funds to provide an additional intensive one-month training course for clinical trainers.

The Urban Primary Care Initiative project consists of two phases to create the foundation for a new system of primary care. Phase I will prepare the new family group practices for open enrollment by providing clinical training, a basic set of equipment, and practice managers to assist with new financial, managerial and reporting functions. Phase II will initiate the new client-centered primary care system with the marketing and enrollment campaigns. The project will be implemented by the Zhezkazgan Oblast Association of Family Physicians, under the technical guidance of the Oblast Health Department.

The Mandatory Health Insurance Fund, developed in March 1995 and operationalized in July 1995, and the Ministry of Health are in the process of restructuring the health care system in Zhezkazgan to address the fundamental inefficiencies in the health system. One of the fundamental problems is the imbalance between the hospital and primary care sector. Given the limited funding available, the dominant share of resources should be devoted to cost-effective primary care. Unfortunately, most of the resources are currently consumed by a large and inefficient hospital sector.

Compared to industrialized countries, Kazakstan has approximately 3 times the number of hospital beds per person. The hospital sector is characterized by a large number of specialized facilities, a high rate of hospital admissions, and long lengths of hospital stays. Hospitals consume approximately 70 percent of health care resources. The primary care sector is highly specialized and poorly equipped. Because of a lack of resources and training, primary care facilities have a high rate of referral to the hospital sector.

Zhezkazgan is attempting to resolve the inefficiencies of the health system through a system of interlocking reforms: 1. Rationalization of the hospital sector; 2. Introduction of a new incentive-based hospital payment system; 3. Re-organization of the system of primary care; 4. Introduction of new incentive-based payments for primary care; and 5. Free choice of primary care providers through open enrollment.

Zhezkazgan has already taken significant steps in instituting systemic reform. The MHI Fund has introduced new payment systems for hospitals. The old system of line-item budgeting for hospitals has been replaced with new systems that pay based on activity. For the first year of operation, the MHI Fund used a per diem system where it paid hospitals for each bed-day, and in April 1996 a case-based payment system was introduced, which pays the average cost per case by clinical department. Next year, the MHI Fund will refine the case-based payment system to pay for hospital care according to clinical statistical groups, which are modelled on diagnostic related groups used in the United States.

The new hospital payment system has improved the efficiency of the hospital sector, but does not address the fundamental imbalance between the hospital and primary care sectors. In March 1996, Zhezkazgan began a radical experiment in restructuring the system of primary care. Throughout the Oblast, all polyclinics have been reorganized into family group practices, consisting of a therapist and a pediatrician. In Zhezkazgan city, with a population of approximately 130,000 people, 22 family group practices have been established. In Satpayev, with a population of approximately 75,000, 17 family group practices have been established.

To strengthen the system of primary care, five steps are needed: a new system of organization, clinical training, equipment, new systems of provider payment, and a monitoring system.

In the Summer of 1997, there will be an open enrollment campaign in Zhezkazgan city, where families will be allowed to select their own family group practices. The enrollment campaign will be preceded by a marketing campaign which will inform the population about family group practices and prepare them for the enrollment campaign. Several of the members of the Zhezkazgan team who will be participating in the project have already visited Issyk-Kul to learn from their experience.

Several activities must be completed before open enrollment can occur. Family group practices must have adequate clinical training, supplies and equipment to provide high-quality primary care. In addition, the new practices must begin to operate more as businesses, competing for patients with high-quality care and responding to incentive-based payment systems with more efficient service delivery.

#### **Training**

Training is one of the central components of the project. An initial survey of the population revealed that the main concern people have about their primary care is the technical ability of the family practitioners. Historically, the best physicians have practiced in hospitals, which is one of the reasons patients often by-pass the primary care system and go directly to hospitals. The other important aspect of training is changing narrow specialists into family practitioners. This requires specialists to be trained outside of their specialty.

Several training courses have already been held in Zhezkazgan. An 8-week course to train family physicians was conducted by the Kazakstan Postgraduate Institute for Physicians in June-July 1996 for 67 physicians in Zhezkazgan city. The training is funded jointly by the Oblast Health Department, Zdrav*Reform*, and individual contributions from the participants.

To provide continued and sustainable support to the newly trained family physicians, a follow-up training was held for 12 practitioners who will be responsible for providing ongoing training to all of the new family physicians in Zhezkazgan city and surrounding areas. These 12 trainers will staff 5 "training practices" in Zhezkazgan city, 2 in Satpayev and 1 in Zhanarka rayon. These training practices will provide training to other practitioners in the city two days per week.

Funds are requested from the Soros Foundation to conduct a one-month intensive training course for 12 additional practitioners to staff training practices in Balkhash and other cities and rural rayons in Zhezkazgan Oblast. Funds are also requested to compensate the physicians in those training practices to conduct training two days per week over the period of one year.

#### Equipment

A core set of clinical equipment for family group practices has been identified and funded by the USAID-sponsored Zdrav*Reform* small grants program for 13 practices in Zhezkazgan. Funds are requested from the Soros Foundation to purchase the full complement of clinical equipment for 14 training practices, as well as basic equipment for training, such as overhead projectors and screens.

#### Practice Managers

Seven Practice Managers will be hired to assist the family group practitioners with the financial, managerial and reporting functions of independent practices, and to conduct and analyze the patient satisfaction survey and manage the marketing and enrollment campaigns.

The Practice Managers will be on the staff of the 5 training practices, as well as two non-training practices, in Zhezkazgan city, but each Manager will also provide assistance to 2-3 additional practices. The Practice Managers will initially be funded through grants, but responsibility will be transferred to the MHI Fund with phase-out of grant funding over one year.

#### Marketing and Enrollment Campaigns

The reorganization of primary care into family group practices with free choice of provider will be introduced to the population of Zhezkazgan through a public information and marketing campaign. A working group has been established in Zhezkazgan to carry out the marketing campaign, consisting of one representative each from the Zhezkazgan Oblast Association of Family Physicians, Oblast Health Department, MHI Fund, and the Center for Health. An initial survey and focus groups have been completed to assess the public's knowledge and attitudes about the reorganization of primary care, which will be used to inform the messages in the campaign.

The public information and marketing campaign will include advertisements (television, radio, clinics, schools, buses), newspaper articles, informational segments on television, and special health promotion activities in the community.

The public education campaign will culminate in a campaign to encourage families to choose a family group practice during an open enrollment period in the summer of 1997. The open enrollment campaign will be conducted by the Practice Managers, with oversight provided by the working group. During the enrollment campaign, information will be distributed to the public about each family group practice, and enrollment points established at strategic locations throughout the city.

# Client Satisfaction Survey

After the first 18 months of the project, a household survey will be conducted in Zhezkazgan to determine client satisfaction with the access to and quality of primary care under the restructured system. The results of the survey may also be used to distribute bonus payments to the family group practices.

A Schedule for Project Implementation, Contact Information, Project Budget, and Resumes of Key Project Participants are included in the full report.

# Private Practice Structure: Identification of Priorities and Problems of Interaction with Health Authorities and the MHI Fund 1996

#### R. A. Abzalova

The establishment of private clinics in the MHI-driven environment is an integral part of the health reform program in Zhezkazgan Oblast. With legislative support at the oblast level, free renting of premises, and equipment allowances, there is now a favourable environment for the development of private practice. A commission entitled "Private Practice Promotion" has been established under the health department headed by the Head of the Department of Health. Beginning July 1, 1995 Zhezkazgan MHI Fund will begin reimbursing providers based on signed contracts.

Currently there are three private practices in the oblast: a private cardiology center "Zhurek"; a private neonatology center "Malutka"; and a private family ambulatory. Selection of these practices was determined by priority directions of health reform as declared in 1995. The program in the Cardiology Center "Zhurek" was chosen as one of the priorities after a comprehensive analysis of demographic data in the Oblast identified myocardial infarction as the main cause of mortality and morbidity with an increasing trend: in 1992, the rate was 64.3 per thousand, in 1996 the rate increased to 66.6. During the current year 66.8% of patients were admitted on the first day of their symptoms, and 11% of them died in the first 24 hours after the admission. Analysis of mortality from myocardial infarction in the Oblast revealed a reduction of the average life expectancy by 28 years. As a result of these analyses, primary care has been chosen as a priority method of preventing and treating cardiovascular diseases as the most cost-efficient and quality-effective.

This program defines the following objectives:

- To introduce a screening method for revealing risk-factors related to cardiovascular diseases (heredity, excessive weight, hyperglycemia, hyperuricemia, behavior Freedman-Roseman stereotype).
- To create a network of "coronary" (cardio) clubs in the oblast for risk-groups. One of the main objectives being correction of behavior and diet stereotypes. One such club "Zhansaya" is currently in operation.
- To involve media in educational work, to provide individual and group training on primary, non-medicamental methods of care.
- To promote primary and secondary prevention of cardiovascular diseases; to promote organization of psychological relaxation rooms at work places.
- To open a new service: a cardiovascular hotline where patients can avail anonymous consultation on related subjects.
- To provide consultations, recommendations, and drug information for self-treatment in the oblast pharmacies to explain correct admission of medications, reliability and quality, side-effect risks, interaction with other medications, consumption term.
- To train paramedical personnel and the public on cardiovascular and emergency care.

- To provide the population with efficient cardiovascular medications for delivering emergency care.
- To establish a fund "Serdtse" (heart) for educational activities aimed at decreasing the
  rate of non-infectious diseases and increasing life expectancy. The main objective of
  the fund is to popularize a health way of life, reasonable preventive measures, present
  new methods of treatment, promote support groups, facilitate the exchange of
  specialists, introduce cardio campaigns, and provide charity help to pensioners and
  disabled people.

The Zhezkazgan oblast has a well-designed network of cardiology centers at polyclinics, profile groups, and intensive therapy wards in general departments. Suggestions for the rehabilitation of cardiovascular patients include the development and introduction of a stage-by-stage treatment of rehabilitation patients; providing a 6 months supply of medications for outpatient myocardial infarction patients free of charge for the second stage of preventive care; the use of non-traditional methods of treatment; and teaching patients various methods of health promotion. The Neonatology Center was establishment because of the high neonatal and perinatal mortality rates. Child and maternity health has been identified as a priority direction.

The private family ambulatory opened in compliance with the oblast program of primary care development. The population of the family practice catchment area is 4000 adults and 1500 children. Currently there are two physicians (the owner and his wife), 3 medical nurses, a lab worker and a middle medical worker. This ambulatory currently has a reception room, physiotherapy and procedure rooms, and a 3 bed day surgery room. In the last 6 months of the ambulatory's activities, visits increased by 40%, ALOS on sick leaves decreased by 20%, and emergency calls decreased by 8%.

The amount of health care delivered by private facilities under the MHI is determined by their licenses, contracts with the Zhezkazgan City medical association, and the MHI Fund. All these practices have undergone accreditation and have been granted a license for their respective types of activities. They are required to report annually to the medical statistics department of the local health administration and to provide care in compliance with MOH regulations. The Zhezkazgan MHI Fund and licensed private facilities signed a contract on health care delivery which stipulates fees and procedures and defines terms of monitoring the quality of health care. They have also established contracts with the City Medical Association. Under such a contract, the CMA transferred 60 beds of a cardiology department to the cardiology center "Zhurek".

The growth of the health care market needs the accelerated development of private practice. Since only those private practices licensed and accredited based on contracts with the MHI Fund can deliver services, the development of private practice needs legislative and political support.

# The Pharmaceutical Market in Zhezkazgan Oblast and its Problems July, 1996 T. A. Begaliev

This report summarizes some key problems in the pharmaceutical market in Zhezkazgan.

The Ministry of Health will develop a pharmaceutical service consisting of the following 5 sectors of drug procurement: Monitoring, Manufacturing, Merchandise (wholesale), Pharmacies (retail), Pharmaceutical science. Currently, the prices for medications are unreasonably high because of the absence of pharmaceutical factories.

#### The following **FINDINGS** are reported:

- Standards have been adopted for medications which treat main diseases. These standards served as a basis for developing hospital formularies.
- A formulary for imperative practical usage in the city and rayon facilities has been
  developed. A similar formulary with 20 drug names has been developed for rural
  FAPs and SUBs. Introduction of drug formularies enabled the health sector to limit the
  assortment of drugs to those best verified and with a high therapeutic effect, provide an
  individual therapeutic approach to each patient, and achieve adequate dosages in
  treatment patterns.
- Within the framework of a privatization program, all pharmacies affiliated to the stockholding company "Farmatsia" were completely segmented in June 1995. There are now 24 pharmacies leased by private owners; 25 transferred to the facilities under the health department; and 2 wholesale pharmacies established.
- As a result of "Farmatsia" segmentation, prices at a wholesale-retail stock-house went down by 80-30% enabling reduction of budget expenditures for medication. The reform also enabled the reduction of prices by 6.83 for the facilities.

# Mandatory Health Insurance Introduction Strategy and Tactics 1996 T. K. Rakhypbekov

The principal direction of health reform in the oblast is changing the health care funding, which results in the introduction of a Mandatory Health Insurance in the oblast. Concrete tasks of this MHI include:

- Reorganization of health care management and the structure of health care facilities.
- Reform of existing health care financial systems, including moving from an item-budget financing system to a new system based on actual delivery of health services.
- Development of general and priority public health programs.
- Development of a MHI territorial base program.
- Design and approve MHI regulations.
- Accreditation and licensing of health facilities.
- Development of a payment mechanism between providers and the MHI Fund for services delivered.
- Development of a quality assessment system for health care delivery.
- Organization of training for health care providers.
- Establishment of an automatic billing system for health services delivered.
- Development of a multi-specialty health care system, including a private practice network and a demonopolized pharmacy network.
- Development of incentive mechanisms and true responsibility for health care on the part of the state and individual citizens.
- Extensive community education on the MHI principles.

The oblast health administration and the Zhezkazgan City Health Department have been abolished. A Health Department under the Oblast administration has been established in its place.

## Methods of Financial Interaction of the MHI Participants in Zhezkazgan Oblast July, 1996 L. V. Tarasova

The MHI system is an effective method of financing health care delivery to the population because it introduces competition into the health care system.

There are four participating subjects: the Ensured (each oblast citizen); the Insurance Payer (premium payer for the working population and the local administrations for the nonworking population and governmental employees); the Insurer (the territorial MHI Fund and its subsidiaries); and the Health Care Providers.

Some health facilities do not participate in health care delivery under the MHI, including Children's Homes, Sanatoria under the MOH, Blood Transfusion Stations, Milk Kitchens, AIDS Centers, and Physical Therapy Dispensaries.

The financial resources of the MHI Fund are formed by pooling on-budget funds and premiums from enterprises in the amount of 5.5% from the payroll salary funds. Premiums and outlays to the fund are used for paying bills to the providers for care delivered, forming a reserve fund of the MHI Fund, and crediting private practice development.

Drastic under-financing of budget resources and inadequate payments from employers raise a problem of how to pay the providers. A conciliation committee consisting of the Fund and health department representatives has been established for settling disagreements between the providers and the Fund. The committee is headed by the Deputy head of the oblast administration.

A per bed-day payment method has been chosen for hospitals, while a per visit payment method has been established for polyclinics.

#### **TABLES**

- 1. Cost Accounting Mechanism for Health Services Based on a Per Person Discharged Method in Shetsky Central Rayon Hospital.
- 2. 1995 Monthly record of Discharged Patients (1643 in Sept., 1779 in Oct., 2101 in Nov.), Beddays (24,716 in Sept., 25,946 in Oct., 28,438 in Nov.), and ALOS (15 in Sept. and Oct., 14 in Nov).

# Health Care Facilities Licensing and Accreditation Experience in Zhezkazgan Oblast 1996 Z. S. Tazhikenova

In addition to the Oblast licensing commission, two regional city licensing-accreditation commissions have been established in the cities of Balkhash and Satpaev under the city health departments with the participation of the MHI Fund representatives. These regions have a well developed network of health facilities, which allowed them to perform licensing of 67 health facilities in a short period. The oblast commission granted 23 licenses, 4 of them to private practitioners.

The rights of health facilities as defined by licensing regulations include the right to determine the type of activities and nomenclature of health services, outpatient follow up care, and prevention; the right to appeal for licensing and be licensed; the right to appeal to a higher level licensing-accreditation commission in the case of disagreement with the commission's conclusions; and the right to appeal for the second time in the case of refusal or denunciation of a license.

The Zhezkazgan MHI system also provides accreditation of health facilities. The objective of accreditation is to advocate the covered population and provide the required amount and quality level of health services in the MHI-driven environment. Accreditation and licensing in the oblast are performed by one licensing-accreditation commission. The MHIF contracts only with licensed facilities.

The terms of licenses and certificates are determined by the accreditation-licensing commission accordingly. The regulations stipulate that the term of the certificate is not to exceed 5 years, with the term being reduced to 3 years for non-governmental facilities. After review by the accreditation commission, facilities and individuals get a certificate defining the adequacy of health care services as complete, with restrictions, or a refusal.

The accredited facilities and individuals are then required to apply for accreditation on determined dates, providing all required documentation; to hold responsibilities for truthfulness of data in the documents presented; to pay accreditation charges confirmed by the receipt; to provide adequate conditions for the expertise; and to provide representation at the accreditation commission meeting.

The Oblast Health Department established the Oblast commission. The chairperson is elected for the term of three years from the members of the commission and is approved by the health department. The commission itself consists of the representatives of the local administration, members of the commission and contracting experts. The commission arranges a group of highly professional experts for accreditation and licensing purposes. Funding of the commission is performed through the system of licensing and accreditation charges and other sources compliant with the Law of the Republic. Costs related to licensing and accreditation constitute part of the primary costs of the facilities. Health care

authorities monitor activities of the commission. The experts council can also establish specialized sub-commissions on licensing hospitals, outpatient facilities, maternity and child health, medical entrepreneurship, and specialty care.

The main functions of the Commission are to develop a program and perform licensing and accreditation of facilities; to arrange groups of experts; to coordinate activities of local health authorities, licensing-accreditation commission, professional health care associations, health insurance organizations and health facilities; to organize surveys to identify consumers' opinion on the quality of care; to provide prompt information for the local administration; to provide consultative assistance on licensing and accreditation issues; to consider disagreements between the health insurance organizations and health facilities in compliance with the law; and to coordinate other activities related to licensing and accreditation.

A **RECOMMENDATION** for future activities is to develop professional standards and an accreditation mechanism with the participation of health authorities, the physicians' association, pharmacists, and public organizations.

## MHI Fund Organizational Work, Zhezkazgan Oblast Taken as an Example 1996 I. S. Zakharov

The Zhezkazgan Territorial MHI Fund Status, Structure, and Activities. The Zhezkazgan territorial MHI Fund was established in accordance with Decree No. 90/12 "On MHI Introduction in the Oblast" on December 27, 1994.

The MHI Fund is an independent governmental off-budget financial-banking system authorized for financing health services within the framework of the territorial basic program. It reports to the administrative and executive organs. Management of the Fund is through a Board of Directors and a separate Executive Management group headed by an Executive Director. The Board of Directors consists of 21 members and was elected by a group of representatives of mandatory health insurance participants. The role of the MHI Fund Board of Directors is to determine prospective objectives of the MHI Fund; approve MHI Fund annual financial reports; determine channeling of generated profit and accumulated reserve funds; develop draft regulations on improving health insurance for the state administrative and managerial organs; establish a Revision Commission; and appoint the CEO of the MHI Fund.

The CEO establishes the Executive Management of the MHI Fund and, with agreement from the Board of Directors, approves the staffing structure of the fund and its subsidiaries. Between sessions of the Board of Directors, the Executive Management performs all the relevant functions of the fund.

The main objectives of the MHI Fund are to provide the realization of legislative acts on the health protection of the people of Kazakhstan; to provide citizen's rights under the mandatory health insurance; to provide overall health insurance; to achieve social justice and equity of all citizens under the health insurance; and to provide financial stability of the health insurance system.

Through these objectives the MHI Fund functions to accumulate financial resources for mandatory health insurance purposes; perform financing of MHI; carry out financial-credit activities on providing the health insurance system; level financial resources of the oblast cities and rayons for the implementation of MHI; provide credit on beneficial terms for health facilities as well as for private practice development; accumulate financial reserves for providing financial stability of the MHI system; organize a database on all categories of premium payers to the MHI Fund; monitor timely and adequate insurance payments to the Fund; monitor rational utilization of funds allocated for MHI; monitor resource utilization and quality of care; and coordinate payment mechanisms between the MHI Fund and health facilities.

The MHI Fund Executive Management Department is subdivided into four departments. The economic-analytical department regulates economic relationships between the MHI system participants, provides economic expertise of health facilities' bills, allocates

temporary free funds, and controls MHI Funds allocated to the subsidiaries and facilities. The insurance payments registering department provides registering and analysis of insurance payments, performs accountancy control of the MHI Fund economic-financial activities, and controls the adequate utilization of material and financial resources. The medical department organizes the work of medical experts for accreditation of facilities, controls quality of care and resource utilization under the MHI system, investigates claims on inadequate care or violation of regulations, and coordinates activities with the planning-economic department on issues related to the economic assessment of the facilities' activities. The software department participates in designing software programs for the MHI, establishing the local computer network of the MHI Fund, and training of the MHI staff.

There are 8 MHI Fund subsidiaries in the oblast cities and rayons. There is a 13 member staff in the Fund, and the number of staff members in the subsidiaries varies from 3 to 7 members depending on the population.

The MHI Fund Interaction with Oblast Authorities, Inter-Regional and International Cooperation

A number of regulative documents were adopted by the Head of the Oblast Administration:

- Decree "On Procedures of Financial Interaction During the MHI Introduction Period in the Oblast" on March 24, 1995.
- Decree "On Capitation Rates" on July 7, 1995
- Provisional regulations on the activities of health facilities under the MHI in Zhezkazgan Oblast
- Provisional regulations on health care quality control in Zhezkazgan oblast
- Pricing methods for health services under the MHI
- Provisional regulations on procedures for user-fees under the MHI system in Zhezkazgan Oblast

The ZdravReform Program of Abt Associates has developed a program for providing technical assistance to the Fund in the areas of introduction of fund-holding programs, health facilities management, and development of advanced payment mechanisms for health services. With the assistance of ZdravReform representatives, the Fund was awarded a grant in the amount of \$21,000 for a local computer network. Also, several staff members of the MHIF, health department and various health facilities underwent training in the USA, Western Europe, and CIS on contemporary problems of health insurance.

Introduction of the MHI by Stage in Zhezkazgan Oblast.

The MHI system was introduced in two stages. During the first stage, March-June 1995, an infrastructure of the MHI Fund was created. The oblast economic entities were registered, medical standards for health delivery were developed, tariffs for hospital and ambulatory care were calculated, licensing of health facilities and private practitioners was carried out, contracts between the facilities and private practitioners and the Fund were signed, health personnel were prepared for their work under the MHI, and advertising to the community was conducted.

During the second stage beginning June 1995, the Fund started pooling premiums from employers and on-budget premiums from local administration on capitated rate agreements for nonworking populations. Health facilities started their practices based on their contracts with the MHI Fund in concurrence with fees approved by the joint committee, correction coefficients and payment regulations. The MHI Fund also performs off-ministry expertise of health service quality and resource utilization, as well as provides credits for private practice development.

#### Accumulation of the MHI Fund Finances.

MHI Fund finances are formed by premiums from enterprises and other entities, regardless of the form of ownership, in the amount of 5.5% from the payroll salary fund, on-budget premiums to cover nonworking population and government employees, and profits from temporarily free funds.

#### Problems and Resolutions of the MHI Introduction Process

Problems that emerged during this process are outlined as follows. Details describing the proposed resolutions to these problems are given in the full text.

- Inadequate financing of the MHI system resulting from non-payments from enterprises and local administrations. The Fund has only collected 16% of premiums from employers and 61% from the city and rayons budgets. Resolutions may include penalty sanctions or appeals to the court.
- Insufficient theoretical knowledge and lack of experience of work under the health insurance on the part of the MHI Fund personnel, chief doctors of the facilities and health workers. This problem could be resolved by arranging workshops and training programs for physicians and paramedical staff.
- Lack of information communication which inhibits efficient control of cash flow, prevents data from reflecting quality and outcome results of health care facilities activities. Suggestions include equipping the Fund with computers with unified programs for processing information in order to create a unified documentation system and database.
- Low tariffs for health services which inhibits facilities from fully implementing the MHI territorial basic program. This problem could be resolved by testing different models of primary care financing, refocusing health care priorities to target primary care development, closing inefficient facilities, and introducing co-payments.
- Inadequate realization of patients' rights for quality care and juridical protection in cases of harmful treatment. Recommendations include conducting surveys, reorganizing health delivery conditions, creating real possibilities for patients to choose a physician, and improving community education.

# Strategic Planning for the Privatization of Health Facilities in Semipalatinsk Oblast, Kazakstan and Practice Manager Training in Bishkek City, Kyrgyzstan and Zhezkazgan Oblast, Kazakstan January 30-February 22, 1997 George Purvis

The **OBJECTIVE** of this visit to Zhezkazgan was to train 40+ Practice Managers and Family Physicians in Zhezkazgan as well as to assist with continuing program design and development. A two day training program for the new Practice Managers was conducted February 18-19, 1997 in the areas of Practice Manager Management, Alternative Payment Systems, Clinical Information Systems, Accounting, Finance, Budgeting, and Physician Productivity for Family Group Practices.

The Practice Manager courses were designed to bring out the various issues in the participants' own environment which are in need of change in light of the new economic conditions prevailing at the moment. This is done through a series of strategic planning exercises that bring out the major strengths, weaknesses, opportunities and threats in their own institutions and the health systems as a whole. This material and the strategic planning process is supplemented with information and statistics to show the participants how they compare with other countries.

The methodology utilized in the seminars is a conference leadership technique which allows the participants to develop a list of their own problems and opportunities, and takes them through a process of finding solutions to problems by themselves. The seminar is designed to be highly interactive and has a minimum of formal lecture material. The concluding exercise requires that participants develop a workplan for the next six months of activity.

ANNEX: List of seminar/workshop participants in Zhezkazgan, February 18-19, 1997

**EXHIBIT:** Agenda for FGP Workshop:

- Strategic Thinking in the New Environment
- The Changing World Situation in Health Care
- Alternative Payment Systems
- FGP Business Planning and Management
- Key Issues in SVC Development

# Health Payment Systems Reform: A Case Study of Zhezkazgan Oblast Kazakhstan, 1995-1996 February, 1997 C. Wickham and G. Purvis

This paper is a case study on the health care payment reforms which have occurred and are presently occurring in the Zhezkazgan Oblast in Kazakhstan. It is meant to be a reference document for Ministry of Health personnel and other health and political leaders concerned with health care payment reform. The specific **OBJECTIVES** of the case study are as follows:

- To document the experiences of policy makers and health managers who are implementing health payment reforms in health systems delivery.
- To present an understanding of the principles, concepts, and methods of health system payment reform for senior level managers.
- To share with colleagues the lessons learned from health managers in Kazakhstan and other CIS countries on health systems payment reform.
- To provide a guide to developing improvements in health care payment reform for the leaders of CIS countries in a time of major economic and political change.

#### General Background

After 6 years of small-scale reform experiments, Zhezkazgan was the first oblast in Kazakhstan to establish an oblast-wide mandatory health insurance system in 1995. Local leadership seized the opportunity to use the new insurance system as a catalyst for comprehensive reform. This document is a case study on the health care payment reforms which have occurred in Zhezkazgan Oblast in Kazakhstan, highlighting hospital payment reform and outpatient reform.

Facilities have historically received financing based on capacity and utilization rates. Incentive is therefore to maintain large, inefficiently utilized physical structures and medical staff, high hospital admission rates, long hospital stays, and excess bed capacity. Hospitals consume 70 percent of health sector budget, and the primary care sector claims less than 20 percent of all physicians. Primary care physicians are poorly paid and lack proper equipment and supplies, which encourages high referral rates to specialists and more expensive inpatient facilities.

Local authorities have set an ambitious agenda to restructure local health administration, implement market-oriented provider payment reforms, rationalize and consolidate inpatient facilities, restructure primary care, privatize pharmacies, and institute free choice of primary care provider. This reform package introduces competition into the health sector, increases autonomy and accountability of providers, and encourages involvement of consumers in decisions.

Demographic Characteristics of the Oblast

Zhezkazgan is a vast oblast of 319,000 square kilometers, but with a population less than 500,000 (73.9% Urban). The oblast's economic activity centers primarily around copper mining and processing, as well as agriculture. The oblast is experiencing many of the same problems as other CIS countries, including high unemployment, underemployment, delay in paying salaries and benefits, and high rates of inflation.

# Health Services Infrastructure

The health provider network in Zhezkazgan currently includes 45 hospitals, 93 polyclinics and primary care facilities, 128 feldsher-midwife posts (FAP), 59 enterprise-based facilities, and three private facilities (one primary care practice, a cardiology clinic, and a reproductive health clinic). Local health authorities have begun a program to rationalize the health services infrastructure, attempting to shift resources to more cost-effective primary care as well as rationalize and consolidate inpatient facilities.

# A. Primary Care

Since 1995, all polyclinics have been reorganized into a network of 14 FGPs. They are still formally part of the polyclinic structure, but efforts are being made to establish administrative and financial autonomy. The FGP will provide primary care to a defined population that will be determined by consumer choice through open enrollment. In Zhezkazgan City (pop.=130,000) nine family group practices have been established, five FGPs have been established in Satpayev (pop.=75,000) and six are operating in Balkhash.

Primary care payment reforms are being developed concurrently with the reorganization of service delivery. The health financing system is moving toward a system of capitation and fundholding, in which family practitioners receive capitated payment for each patient assigned or enrolled. There has been discussion of moving toward a full capitation system over time. Under this type of payment system, unnecessary referrals and hopitalizations become a penalty to primary care physicians, and funds are removed from this fundholding account to pay for referrals and hospitalizations. Thus, primary care physicians will essentially purchase outpatient specialty care at polyclinics and hospital care as needed.

This capitated payment system along with free choice of provider can provide financial rewards to primary care physicians for higher activity levels in their own practices and reductions in inappropriate referrals to specialists and hospitals. It introduces competition into the entire health care system, encouraging physicians to become cost-conscious purchasers and suppliers of health services and increasing the prominence of primary care in the health system.

The main concern people of Zhezkazgan have is about the technical ability of the family practitioners. Physicians must have adequate skills and tools to meet the increased demand with high quality services. The quality of primary care is being strengthened through intensive training of providers and improved supplies and equipment. Several 8-week courses have been conducted in Zhezkazgan by the Kazakhstan Postgraduate Institute for Physicians. As a result, over 122 family physicians have been trained in primary care techniques

# B. Inpatient Care

The second component of rationalization is closing or consolidating inefficient inpatient facilities. Several facilities have been closed and personnel reduced. In the first quarter of 1996, for example, the hospital bed capacity was reduced by 806 beds (>13%). In addition, over 2,200 hospital personnel positions were cut (>16%). Other measures were taken to reduce fixed costs such as the installation of electricity, gas and water meters in medical facilities, and shifts to more price-competitive utility companies.

They are also developing a case based payment system for In-Patient Hospital Care Facilities. This payment method allows hospitals larger payments for critically ill cases and for cases consuming a larger amount of hospital resources. This type of payment encourages hospital physicians to reduce unnecessary long stays in hospitals. A disadvantage of this system is that it encourages an increase or overutilization of cases (admissions) since the hospital receives more funds for more admissions.

# History of Health Reform in Zhezkazgan

The history of health reform in Zhezkazgan oblast dates back to the New Economic Mechanisms (NEM) initiated in the Soviet Union in 1989. This program increased the autonomy of local government administrations, allowing them to retain a portion of local tax revenue and exert greater control over the development of local budgets. Under the NEM, the towns of Karajal and Zhairem in Zhezkazgan established a locally-controlled Territorial Medical Organization (TMO) to coordinate health financing and service delivery reforms. The TMO, which resembled a health maintenance organization, channelled the flow of health funds and regulated service delivery through contracts with health providers.

The NEM were cancelled at the national level in 1990. However local support for the health reform initiatives in Zhairem-Karajal continued. Significant reforms had been implemented by early 1991 by the TMO, changing the way facilities received their financing, allowing more discretion in the allocation of funds at the facility level, and establishing groups of primary care providers. In 1992 the Zhairem-Atasou Free Economic Zone (FEZ), which included the towns of Karajal and Zhairem, was established to provide the administrative and legal structure for health reforms.

To expand the levels of funding for health care, the national parliament in early 1992 passed the law "Protection of the Population's Health", which laid the foundation for a national health insurance system. The national health insurance scheme would establish Mandatory Health Insurance Funds (MHI) in each oblast and at the national level.

The Government of Kazakhstan designated the Zhairem-Atasou Free Economic Zone in Zhezkazgan as a demonstration site for the health insurance scheme. A MHI Fund was established in December, 1992 and was financing health facilities by March 1993. The MHI Fund was designed to administer insurance contracts and collect premiums from employers through a payroll tax and local government administrations for unemployed and protected populations, including children and pensioners.

The MHI Fund also replaced the TMO as the purchaser of health care in the FEZ. The MHI Fund purchases care through contracts with providers, including the TMO. As a result, the financing for health care was changed to be largely off-budget, and the "purchaser of care" was thus separated from the "provider of care," a critical step in reducing the overall cost of the health care system.

In 1994 when the government extended the health insurance experiment to the entire oblast, Zhezkazgan became the first oblast in Kazakhstan to finance nearly all health facilities through mandatory health insurance. The Oblast MHI Fund began financing health facilities in July 1995, and health care financing reform was initiated.

The President of Kazakhstan extended health insurance nationwide on June 15, 1995 with a decree guaranteeing medical insurance for all citizens of Kazakhstan. A Federal MHI Fund was established, and oblast-level Funds became operational in all 19 oblasts and Almaty City by April 1996. The Federal MHI Fund was intended to develop a basic benefits package, provide management and financial oversight to oblast-level Funds, draft policy guidelines on provider payment methods, and monitor the quality of care.

# Current Policy Environment

Before the national insurance system reached the implementation phase, conflicts arose at the national level between the Federal MHI Fund and the Ministry of Health over the division of financial responsibility and control, as well as the questions of provider payment and quality assurance. By the time the oblast Funds became operational in April 1996, the MOH had passed a resolution to divide financing responsibility by establishing a dual benefits package, the Guaranteed and Basic Packages.

The Guaranteed Package, financed by the MOH budget, includes such services as public health, emergency care, acute and medium-severity cases, and all services in specialty facilities such as tuberculosis, infectious diseases, and psychiatric dispensaries. The Basic Package, financed by the MHI Funds, includes all other services, such as planned hospitalizations and nearly all outpatient care. The national system of dual benefits package has added complexity of financing reforms, requiring facilities to maintain duplicate reporting systems and to analyze each case to determine the appropriate payer.

Zhezkazgan is one of only two oblasts in Kazakhstan that has pooled all health care resources in the MHI Fund, and has avoided the dual benefits package. This is possible because a strong Oblast Health Department is able to relinquish control of resources to the MHI Fund without sacrificing decision making power in the health sector.

### Description of Payment Reforms

The hospital payment reforms in Zhezkazgan have been enacted incrementally, with a gradual shift in financial risk to the facilities. This method has given facilities time to adjust to the administrative demands and the increasingly competitive environment. It has also allowed time for a comprehensive patient-level data system to be established.

The hospital payment reforms began with a shift from the traditional chapter budget financing system to payment of a fixed amount per hospital bed-day in each inpatient facility. A more recent refinement is a shift to reimbursement of a fixed amount per hospital case which varies according to the clinical department. This method is currently being refined to reimburse hospital cases according to clinical statistical groups (groups of diagnoses with similar clinical characteristics and similar costs).

Description of the Hospital Payment Systems

### Per Diem Payment System

With the introduction of health insurance in 1995, the hospital payment system in Zhezkazgan made its initial break from the chapter budgeting system. Hospitals were financed on the basis of bed-days generated each month beginning in July 1995. Although this did not offer incentives to decrease unnecessary admissions and length of stay, this new payment system represented a significant change, a change from payment for capacity to payment for activity.

# Case-based Payment System by Clinical Department

To calculate the average cost per case for each clinical department, direct and indirect costs for each department are determined, and the total cost is divided by the total cases.

# Case-based Payment System by Clinical Group

The case-based payment system by clinical department does not adequately capture cost differences in hospital cases, and therefore must be refined so that hospitals can compete on efficiency rather than case-mix. This is a future development of the payment system in Zhezkazgan.

Development and Implementation of the Case-Based Hospital Payment System

# **Cost Accounting**

In developing the new provider payment systems, the true costs of health care services must first be determined. ZdravReform has developed a cost accounting system that bridges the old 18-category budget and accounting systems with more modern methods of cost calculation and analysis.

#### Calculation of Rates

A set of clinical statistical groups were defined across all inpatient facilities in the oblast. The average cost per case in each clinical statistical group was then determined. The total costs and average cost per bed-day were estimated for each department using the step-down cost-accounting methodology. Each clinical statistical group was then assigned to a department. The average cost per case for the clinical statistical group is determined by multiplying the average length of stay times the average cost per bed-day in the corresponding department.

The average cost per case for each clinical statistical group is divided by the global average cost for all cases to determine the "relative weight" of each department/clinical group to the global average cost, which by definition is equal to one. Specific weight coefficients are multiplied by a base rate, yielding price (costs) per case for a group of hospitals. A description of the steps for calculating the base rate is outlined in the full text.

In Zhezkazgan, initially setting the base rate was a source of conflict between the Oblast Health Department and the MHI Fund. The base rate was initially set independent of the MHI Fund's revenue projections and was set unrealistically high. The MHI Fund did not have sufficient revenue to fully pay the hospital's bills and was in debt to facilities. This conflict was eventually resolved.

# **Information Systems**

Data collection and reporting systems are critical in providing the necessary information to determine costs and rates of payment. In order to use this information for decision making, individual facilities must understand the numbers and be able to question the MHIF on their accuracy. This means that individual facilities will need computer systems and manpower to collect, store, and report their own information.

# **PRELIMINARY RESULTS:**

- 1. The rationalization of the health services infrastructure continues with the closing or consolidating of inefficient inpatient facilities. The extent and scope of these changes are much greater than without payment reform.
- 2. Perhaps the single biggest result of the experiment has been the change in thinking which has led to a change in behavior. The old system of payment by historical costs, capacity, patient days, admissions, and out-patient visits is no longer in effect.
- 3. FGPs are now discussing enrollment and free choice of provider. Three new private facilities have been established, which would not have happened without payment reform. Since 1995 all polyclinics in the oblast have been reorganized into a network of 14 family group practices. (9 in Zhezkazgan City, 5 in Satpayev)
- 4. Flexibility in budgeting and accounting and in the utilization of resources in a flexible manner is a key topic of discussion and implementation.
- 5. Hospital managers are now discussing cases not patient days and the use of new types of case based information for decision making. Some notice that their job has changed from filling hospitals with patients, to emptying hospitals of patients. Hospital costs as a percentage of total health system delivery costs are being reduced from the historical figure of 70-75% to 55-60% and will go lower. Again, this would not have happened without payment reform.

# **CONCLUSIONS and LESSONS LEARNED:**

- 1. The Single-payer system allowed the development of a unified data system to monitor impacts and refine payment systems.
- 2. An incremental approach to implementation of new payment systems allows facilities time to adjust to the new economic environment.
- 3. The design and development of new data and information collection and reporting systems is critical to the successful implementation of health reform.

- 4. The development of case based payment systems for inpatient care have proven to be both effective and efficient in reducing the cost of hospital services. However, since this system can encourage unnecessary admissions, other mechanisms must be set up to ensure that the hospital admission is appropriate.
- 5. Changes in the hospital payment system must be tied to other changes in the health system, such as improved primary care, capitation payment for outpatient services, and rationalization of facilities, as well as improvements in prevention programs and the availability of effective pharmaceuticals.

**DEFINITIONS** (The following definitions are interspersed throughout the text but have been consolidated here for brevity and clarity.)

<u>Capitation</u> - Payment of a predetermined fixed sum per period (monthly or yearly) to cover some or all health services for each family member enrolled for that specific period.

<u>Primary Care Fund-holding</u> - Specifically designated funds held in a special account for primary care physicians which are distributed based on enrollment and the number of referrals to specialists, ancillary services and hospital admissions.

<u>Fee schedules</u> - A series of values that are derived by the development of a relative value scale based on points related to historical costs. The points relate to a fee for service or a charge for specific services.

<u>Case Based Payment System</u> - A payment method which structures the payments to hospitals based on a classification system of various types of cases and usually places clinical diagnoses/departments into specific groupings of similar types of admissions.

<u>Single-Payor System</u> - In this system, the health insurance fund becomes part of the health finance division of the Ministry of Health and the Oblast health departments. There is one payor for all health facilities.

<u>Multi-Payor System</u> - A new organization is created at the Federal level and in every oblast which is responsible for collecting the new payroll tax and paying for the health care of specific populations (employees, dependents). This new organization pays hospitals and polyclinics, but the Ministry of Health is still responsible for paying hospitals and polyclinics for uncovered populations, such as children, and the unemployed. The Ministry of Health would also be responsible for paying specialized health facilities such as dispensaries. Thus, in a multi-payor system two organizations pay for health services: the Oblast health department and the new health insurance fund.

<u>Step-down and Costing Approach</u> - A procedure of allocating the outpatient and inpatient direct and indirect costs of non-revenue producing departments to the revenue producing departments on a systematic method of allocation which can result in a total cost of operations of these departments.

# **TABLES**

- Table 2.1 Demographic and Health Characteristics
- Table 2.2 Health Care Provider Network
- Table 2.3 History of Health Reforms in Zhezkazgan Oblast Diagram 2.1 Current Structure of the Health Sector in Zhezkazgan
- Table 3.1 Summary of Hospital Payment Reforms

# Financing Mechanisms for the Fundholding Family Practices and Hospitals in Kazakhstan: Concepts, Methodologies, and Implementation February 3-15, 1997 Alexander Telyukov

After working in Zhezkazgan in April 1996 developing a methodology of outpatient rate setting and training prospective users of the fee schedule, Telyukov returned to Zhezkazgan to evaluate the progress of the outpatient rate schedule development and prompt its completion.

# The following **OBJECTIVES** were proposed:

- 1. Completion of the outpatient fee schedule.
- 2. Age/sex adjusters to differentiate capitation rate according to demographic composition of FGPs' enrollment.
- 3. Define limitations to partial fund-holding.
- 4. Outlier case reimbursement.
- 5. User charges in the context of fund-holding.
- 6. Fee schedule for day surgeries.
- 7. Indicators for evaluation of reform progress.

# The following **ACTIVITIES** and **FINDINGS** were reported:

# Outpatient Fee Schedule

Most of the work has been carried out between May-December 1996. As was designed during the April 1996 visit, 21 ambulatory facilities, mostly hospital-based polyclinics, participated in a cost estimation process. However, two main gaps remained: 1. Direct costs were not estimated for clinical and biochemical lab tests and X-ray diagnostics. As a result, relative weights could not be established across the entire list of services; and 2. Several hospitals did not separate outpatients from inpatients and, consequently, volumes of services could not be estimated accurately. This led to inflated utilization numbers, thus diminishing the monetary equivalent of the relative value unit.

Both problems were resolved during this consultancy. Missing information on direct costs was provided by experienced lab and X-ray technicians, an estimation of the in-to-outpatient split was provided by an economist from the Oblast Teaching Hospital, and the 1996 outpatient care budget was used to calibrate the RVS. The outpatient fee schedule was completed on February 12, 1997. It is comprised of 272 services, arranged in 13 chapters.

### Age/Sex Adjusters to Capitation Rate

FGP physicians are increasingly dissatisfied with the uniform capitation rate. Risk adjustment has therefore become a pending issue. The oblast capitation rate will begin with crude risk adjusters by allowing for health care cost variation by age/sex groups.

The hospital discharge data base created in Zhezkazgan oblast with information for 60,000 cases provides enough material for the estimation of cost variation by age/sex category. Costs were then calculated for each group as an annual 1996 total of patient days by 34 clinical specialties, weighted by average costs per patient day in respective specialties. At the time of this report, the consultant was still waiting for the information on the population size by age/sex group to complete the calculation of risk adjusters.

The following **RECOMMENDATIONS** were presented (details outlined in text):

# Outpatient Fee Schedule

The OFS should go through validation before it takes effect. That is, primary care physicians, specialists, and providers of paraclinical services should review the relative value scale for compliance with professional common sense.

Because the backlog in data entry seems to be imminent with the current MIS environment in Zhezkazgan, it is suggested that two approaches may be used: 1. FGP managers would summarize primary data manually and enter the total number of each service into the fund's database once every two weeks or 2. A sample of 10 FGPs should generate sample data to evaluate the needs of utilization, cost, and quality control and analyses. Other recommendations include designing blank forms for detailed and aggregated reporting on outpatient services and conducting periodic revisions of the OFS.

# Risk Adjustment

Prior outpatient costs should be factored into the formula for the risk adjusted rate.

### The Limits to Partial Fund Holding

It was recommended that partial fund-holding be extended to a limited part of hospital and emergency budgets. The basis for this recommendation is the fact that current FGPs are not ready to assume the broad financial responsibilities and risks associated with full fund-holding. Partial fund-holding, however, does not provide motivation for reduced utilization of hospital and emergency services. In order to make the fund holder feel the financial impact of excessive utilization of hospital services, part of hospital costs should be included into a capitated budget. Several possible options and their shortcomings are outlined:

- A. Fifteen percent of planned inpatient care financing is allocated to a fund-holder.
- B. Include funding for selected inpatient diagnostics into the capitation budget.
- C. The fund holder would receive part of the hospital budget with the arrangement to spend it by co-paying for inpatient care on a proportionate bases, that is, a certain percent of each hospital case costs will be paid by the fund holder.
- D. Prospectively specified parts of the case mix may be included in partial capitation.
- E. Emergency care costs could be partly included into the capitation rate.

### Outlier Case Reimbursement

In order to facilitate the design of outlier reimbursement mechanisms, case mix grouping should first be completed first. Basic approaches to the issue of outlier reimbursement are outlined in detail, including discussions of such topics as marginal costs, day outlier

thresholds, cost outlier thresholds, marginal factor, aggregate denial-of-reimbursement cap, over-reimbursement of costs, and outlier cases induced by under-utilization. The mechanisms for outlier case reimbursement may be regulated separately by hospital type, clinical specialty, and particular group.

# Fee Schedule for Day Surgeries

A growing part of surgeries is expected to be performed outside the hospitals as fund-holding will set financial incentives for moving hospital care to the outpatient setting. Administrative measures are moving toward the development of day surgery centers. Consequently, the development of a day surgery fee schedule has become an important issue. In order to form a rate schedule, procedures that might be performed in an outpatient setting should be selected from the ICD-9-CM surgery list to be costed.

# User Charges in the Context of Fund Holding

User charges should be used in three tiers: a flat payment per visit; a tentative 2 percent copayment for self-referral for a specialist consultation and diagnostics; and some 50 percent co-payments for non-network referrals. Families living on a fixed income and those below subsistence level might be exempt from user charges.

# Indicators to Evaluate the Reform Progress

A system for evaluating the Zhezkazgan health care sector should be designed.

#### Conclusion

It is likely that in Zhezkazgan, health care reforms will continue relatively unimpeded. However, there is a growing concern at the MHIF that the National MHI Fund is becoming disruptive in its policies and in its relations towards the Zhezkazgan health care reforms.

#### **ANNEXES**

- List of Contacts
- Post Scriptum: Risk Adjusters Estimated
- "Estimation of Age/Sex Health Care Cost Adjusters for Zhezkazgan Oblast: Based on Reported 1996 Patient Days, 1995 Specialty-Average Patient Day Costs, and Population Size as of 01/01/1996." (English, Russian)
- APPENDIX A: Estimated Direct Costs by Procedure: A Primer for the Zhezkazgan Oblast Outpatient Fee Schedule (Russian)
- APPENDIX B: Outpatient Fee Schedule for Zhezkazgan Oblast: Intensity Weights and Rates (Russian)
- APPENDIX C: Prior Inpatient Costs by Age/Sex Group: A Primer for Capitation Rate Differentiation in Zhezkazgan Oblast (Russian)

# Financial and Health Care Management in Kazakstan and Kyrgyzstan January-March, 1997 Bradford Else

This trip report summarizes financial management technical assistance performed between January 24th and March 14th, 1997. Activities included 10 days of technical assistance in Zhezkazgan including the provision of two workshops. The workshops, entitled "Management Accounting and Control for Improved Health Care Management," involved over 100 participants. The technical assistance was designed to plan and then begin the actual implementation of financial tools. The intent was to help build the financial and management infrastructure necessary to support an increased level of primary care while nurturing the management skills necessary to support an impending new funding scheme. The field work included advisory services to the Oblast Health Care Authority, the MHIF, health care providers, and newly formed FGPs covering administrative, organizational, financial, accounting, computerization, clinical (financial) evaluation, communications and marketing.

The purpose of this technical assistance was to complement the structural changes in the funding and financing processes that were being proposed with pragmatic tools to provide for an efficient, effective, yet controlled implementation. Local managers needed to improve their technical knowledge of finance, accounting, and health care management in order to properly manage the proposed changes on the horizon. Specific **OBJECTIVES** in Zhezkazgan include the following:

- To facilitate and train local managers in the basic tools, key concepts, and application of management accounting so they can obtain tangible value during the implementation of new payment systems and other rationalization efforts.
- To promote increased sustainability and self-management among the emerging primary care sector.
- To leverage the experience gained in other parts of the Former Soviet Union to maximize ZdravReform Program efficiency and effectiveness.

In Zhezkazgan, these activities took the form of training workshops, budgeting assistance, cost accounting assistance, and performance management assistance. Specific recommendations for each area of assistance are outlined in the full text.

A. *Training workshops*. Two seminars were provided in Zhezkazgan under the title "Management Accounting and Control for Improved Health Care Management." The objectives of these seminars were to 1. introduce senior health managers, chief economists, physicians, family practice managers, and financial support staff to the key tools available to guide efficient allocation of resources in their health facility; 2. provide practical experience to these same individuals in using these tools; 3. begin to guide these individuals in designing, implementing and monitoring implementation of systems of financial management and control in their own health facilities, and 4. share the international experiences of others involved in this effort.

The workshop was divided into six modules, each lasting about 2-3 hours. Within each module, a 1-2 hour presentation was given, followed by a short small group activity. The topics covered in these modules were Introduction to Management Accounting, Budget Applications, Budget Preparation and Development, Internal Control, Cost Accounting: Preparation and Development, and Cost Accounting: Applications.

B. *Budgeting Assistance*. Zhezkazgan FGPs are in the process of organizing their business planning and management techniques necessary to manage new funding methods. Part of this effort involved the need to create budgets. Technical assistance was provided on the methods and mechanics of creating statistical, expense, revenue, and cash budgets. This assistance was provided at selected FGPs designated by the Head of the Health Authority rather than to large groups. The idea was to assist four key FGPs and let these four teach/share with their fellow FGPs. A general recommendation is to continue to encourage the formulation and evaluation of statistical, revenue, expense and cash budgets for the model FGPs.

In Zhezkazgan, data collection has been ongoing for sometime. However, a greater effort is needed to analyze the validity of the data. An Excel spreadsheet was prepared to determine the accuracy and reasonableness of data abstracts from providers.

- C. Cost Accounting Assistance. The scope of assistance among the selected FGPs was to illustrate how FGPs can rapidly identify the costs of services within their organizational units. Four key variables were highlighted: Accurate volume statistics shown by month (which were somewhat lacking); Accurate expenses shown by cost type (salaries by month, medicines by month, etc.); A reasonable methodology for identifying relative value weights/coefficients; A reasonable methodology for identifying fixed and variable costs as well as separating overhead allocations from responsibility centered costs.
- D. *Performance Management Assistance*. Two subject areas were highlighted: 1. The differences between performance measurement and performance indicator systems (retrospective versus prospective) and the need to be more forward looking in managing change. Managers, particularly during periods of change, need to turn historical perspective into forward-thinking action steps. And 2. The designs of incentive systems are an outgrowth of performance measurement systems and address such questions as why the establishment of responsibility systems is key to the formulation of incentive systems, why incentive systems need to be aligned with the goals of the organization, and how effective incentive systems tend to retain and attract high quality employees. Counterparts in Zhezkazgan were particularly interested in this topic.

Subject areas particular to Zhezkazgan included establishing improved provider payment systems; developing improved primary care capabilities; and facilitating the creation of an organizational, financial, and clinical infrastructure capable of self-sustained operation. A working committee, headed by the Oblast Health Care Administrator, was created to facilitate the reform process. The reform committee is intended to discuss and resolve issues as they arise as well as to divide up the necessary tasks. Initial committee members consisted of the Head of the FGP Association, Head of the Health Insurance Fund including

technical and computer personnel, Four Family Group Practice Head Doctors with their FGP Managers, and two Peace Corps workers involved with FGPs.

Specific **RECOMMENDATIONS** are outlined in this report according to the following subjects:

- Administration and Organization
- Finance and Accounting
- Control (External)
- Computerization
- Clinical
- Communications and Marketing
- FGP Roll-Out

### **ANNEXES**

- 1. List of documents consulted
- 2. Computerization overview for Zhezkazgan
- 3. Purvis (Feb. 1997) and Telyukov (Feb. 1997) Notes on Current and Next Steps in Zhezkazgan
- 4. Training notes on designing effective incentive systems
- 5. List of persons contacted
- 6. Zhezkazgan training seminar/workshop attendees
- 7. "A reminder on hotel security, Zhezkazgan, Kazakhstan."

# Family Planning Survey Report for Issyk-Kul Oblast, Kyrgyzstan and Zhezkazgan and Satpaeva Cities, Kazakhstan April-May, 1997 G. Hafner and S. Asankhodzhaeva

The incorporation of reproductive health issues, including family planning, is an important step in the development of the FGP as the vehicle for delivery of primary care. Ideally, increasing access by making it more convenient for women to receive reproductive health assistance, including contraceptive information and methods, should result in a decrease in the abortion rate and an increase in the use of modern contraceptive methods. As part of the evaluation and program planning process, a survey was designed to determine the fertility history of the typical female client of reproductive age, her experience with receipt of family planning information, and her contraceptive use. The survey was administered in Issyk-Kul Oblast, Kyrgyzstan and pretested in Zhezkazgan city, Kazakhstan. A full survey with a larger sample was not conducted at this time in Zhezkazgan since the administrative reorganization within the Kazakhstan government and the merger of Zhezkazgan Oblast with Karaganda Oblast disrupted previously established working relationships with local authorities in Zhezkazgan city.

As part of the pretest, 60 women completed the survey in the FGP waiting room. Results showed that the most popular type of contraceptive was the IUD, with only a few using oral contraceptives and other methods. Many women reported not getting information from any source, indicating that information needs to be more readily available. The results support continued work in integrating family planning activities into the FGP. Additionally, more training for physicians would increase their ability to offer counseling to both women and men.

**ANNEX:** Survey for Family Planning Services

# Financial and Health Care Management in Zhezkazgan/Karaganda July, 1997 Bradford Else

This trip report summarizes financial management technical assistance accomplished between April 24 and July 12, 1997. While the original field work intended to provide FGPs with management resources and methods necessary to efficiently deliver an improved level of primary care, the takeover of the Zhezkazgan territory by the Karaganda oblast required immediate technical assistance to ensure continuation of the reform process. Following the announcement that the Karaganda oblast would assume administrative control of the Zhezkazgan Oblast, a number of rapid-fire events occurred:

- Within 24 hours of the announcement, Karaganda Administrative authorities were in Zhezkazgan assuming immediate control.
- The Head of the Zhezkazgan Oblast Health Department, Dr. Rakhybekov, requested assistance from ZRP staff in Almaty to preserve the reform effort in Zhezkazgan.
- Planning and coordination meetings occurred to strategize and implement steps to preserve the material reform progress that had been made to date and make immediate contact with Karaganda authorities. Assistance included the drafting of decrees to preserve the demonstration site, letters to key decision-makers in the reform process, and arrangements for meetings and follow-up with the new and old Oblast leadership.
- US-AID ZRP was assured that the experiment would continue with enthusiastic support by the new authorities and continued financing.
- The Head of the Zhezkazgan Oblast Hospital was relieved of his duties.
- The former Head of the Oblast Hospital, who had been dismissed by Dr. Rakhibekov in 1994, was named the new Head of the "Zhezkazgan Territory" Health Department by the new city Akim.
- Dr. Rakhibekov was relieved of his duties as Head of Zhezkazgan Oblast Health Care Administration and was offered a Deputy position in Karaganda with a staff of three.
- The President of Kazakhstan flew to Zhezkazgan and met with the new Karaganda Administration of the Zhezkazgan territory, as well as executives from Samsung Corporation, a major investor in the region. The President, apparently not informed of the reform effort, discussed on Zhezkazgan TV with the Minister of Health how reforms were not happening fast enough and this situation was unacceptable. (Ironically, the televised discussion between the President and the Minister of Health occurred in front of the Samsung Hospital in Zhezkazgan, a world-class state of the art 350 bed facility built in 1995 but with absolutely no equipment, staff, or even one patient. The original funds set aside to build the hospital for Samsung had not been managed properly by local Kazakhstan counterparts, and no money was available for the purchase of any equipment necessary to make the hospital useable. So, the hospital sits empty, guarded by a skeleton security staff, and one friendly mongrul.)
- ZRP staff met with key stakeholders to assess the situation, including interviews with head physicians and practice managers from four key FGPs, interviews with the Head of the Health Care Administration and his deputies, and interviews with the MHIF.

- The Ambassador of the United States wrote a letter of concern to the Prime Minister of Kazakhstan indicating her hope of continued reform in this area and the prevention of any "dismantling" of existing reforms.
- Tours by Karaganda administrative authorities, including the Karaganda Finance and Health departments, of the FGPs and other health care facilities in Zhezkazgan occurred. One FGP was told their effort was "nothing" and they were given indications the "experiment" would not continue with other critical comments. Doctors were asked when they were last paid, and responding that their pay was "up to date", they were advised not to continue to expect up to date payment in the future, as Doctors in Karaganda had not been paid for months.
- The MHIF reported they were advised the continuation of the 15% partial capitation rate from the MHIF would diminish, that only those insured would obtain funding.

Indications from the new and old local authorities confirmed that the FGPs could continue to exist, although there was no confirmation that the primary care program would be allowed to expand. The financing of FGPs was still under discussion as the Head of the Karaganda MHIF indicated he was not in favor of capitated financing, the Zhezkazgan MHIF leadership reported they were in favor, and the National MHIF representatives refused to indicate either way.

**RECOMMENDATIONS** to Zhezkazgan authorities and ZdravReform Program Directors were to facilitate improved communication with the new Karaganda Authorities, to meet directly with Karaganda Staff in Karaganda, to preserve financing, to preserve the legal and reform environment necessary to sustain reforms, and to enhance high-level policy level reform discussions with top officials across Kazakhstan.

#### **ANNEXES**

- 1. Detailed Outline of Evaluation Report Format for Summarizing the Reform Effort to date in Zhezkazgan
- 2. "Designing and Implementing Financial Information Systems with Recommended Methods for Analyzing/Using Information for Management Decision Making: A How-To Manual for Health Care Organizations"

# Health Care Reform Program in the Zhezkazgan Intensive Demonstration Site (Zhezkazgan City, Ulytaussky Rayon) of Karaganda Oblast for 1997-1999 1997 (Russian and English texts)

The current document is in response to the MOH request for a detailed plan for the continuation of reforms in the former Zhezkazgan Oblast over the period October 1997-1999.<sup>1</sup>

#### Introduction

Reallocation of resources from the expensive inpatient sector to a more effective and costefficient primary care sector is one of the major directions of the reform. This presupposes
the reorganization of hospitals aimed at optimizing the bed-fund and the introduction of
new efficient payment systems. It also implies the reorganization of outpatient facilities
and formation of an optimal network of family practices which operate in a market system
and focus on providing effective and less expensive primary care. The capitated payment
system along with the introduction of fund-holding for FGPs has been chosen as a model
for the reorganization of the payment system. The following phases of the transition to the
new payment system have been identified and implemented:

The First Phase -- Preparatory (February 1995-March 1996)

The first stage aimed at shifting from the old system of chapter budget financing based on the bed-fund capacity to a payment method based on the provider's performance results. The main weakness of this system, however, is the incentive it creates for health facilities to increase the unjustified length of treatment and the respective treatment costs. As part of this process, real average costs of hospital cases were calculated for each hospital by each clinical department. The calculated costs were then averaged across the oblast hospitals resulting in a unified weight units scale against the average cost of the treated case in the oblast. The relative weights reflect the complexity of treatment by different specialties. Hospitals were transferred to the case-based payment system beginning April 1996. A new information system was also developed for the accumulation of data on all admissions to the hospitals and the per-case payment.

Second Stage -- Optimizing the Bed Fund of the Region and the Reorganization of the Out-Patient Sector (April-December 1996)

The new information system made it possible to evaluate the actual efficiency of the bedfund utilization in oblast health facilities and to develop organizational activities for its improvement. As a result, a number of hospitals in the oblast were closed. Other facilities were consolidated with the aim of reducing maintenance costs and developing a more

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<sup>&</sup>lt;sup>1</sup> This document is an English Translation of a proposal submitted to the Minister of Health of Kazakhstan Republic, the Akim of Karaganda Oblast, and the Director General of the National Mandatory Health Insurance Fund. A second document ("Proposed Plan for the Continuation of Reforms in the Former Zheskazgan Oblast") was prepared in English detailing the same information. Some phrases were extracted from this second document for a smoother English translation.

rational use of the bedfund and available premises. With these changes, the number of beds per 10,000 people was reduced from 129.5 in 1995 to 60.1 in 1997, and the number of hospitals went from 45 to 22. The number of employees was reduced from 13,082 to 7595. The polyclinics and rural physician ambulatories were also reorganized into legally and financially independent FGPs. Some of the polyclinics were retained as consultative-diagnostic centers.

The next important step in the introduction of fund-holding for FGPs is the development of the outpatient fee schedule and transition to payment for health services provided.

Third Stage -- Transition to a Partial Capitation (January 1997 to date)

An annual capitated rate was calculated based on the 1996 oblast health budget. In the absence of fund-holding, 15% was determined to be the share of the capitated rate that was necessary for FGPs to maintain their services. The capitated payment to FGPs based on the size of their enrolled populations went into effect in January 1997. The new payment system for polyclinics based on the outpatient tariff schedule was introduced in May 1997.

Based on the evaluation performed by the MOH, MHIF, and ZdravReform Program, the MOH decided that the health care reforms in Zhezkazgan should be continued and expanded. The plan for rolling out the health care reforms onto the Karaganda oblast will include the application of the new hospital payment system throughout the oblast. The system will be based on clinical-statistical groups, new clinical and financial systems, and a pilot implementation of the contract model with mixed polyclinics.

# Goals and **OBJECTIVES** of the Experiment.

The health reform experiment will continue in the direction initiated by the Zhezkazgan Department of Health and MHIF in 1995. The general goals remain as follows:

- 1. Continue decentralization and privatization in the health sector, and increase management and financial autonomy for health care facilities. In addition, increase the role of nongovernmental organizations in the health sector.
- 2. Continue to create the conditions for a health care market, including a public-private mix in health care services delivery and informed consumer choice of providers.
- 3. Continue to restructure the health service delivery system to shift resources and service delivery from the large, inefficient hospital sector to the more cost-effective primary care sector.
- 4. Continue to strengthen the primary care sector through new organizational structures and financing mechanisms, clinical training, and adequate equipment.
- 5. Continue to improve the quality of health care services.
- 6. Improve the population's health through public information campaigns and the promotion of healthy lifestyles.

# The **EXPECTED INTERMEDIATE RESULTS** of the experiment are as follows:

1. New payment systems for health care providers that provide economic incentives to improve efficiency and quality of care.

- 2. Increased management and financial autonomy for health care providers to make resource allocation and other management decisions.
- 3. Competition among public and private health care providers.
- 4. A greater proportion of funding allocated to and health care services provided through the primary care sector.

It is expected that the reform experiment will lead to the following **LONG TERM RESULTS**:

- 1. Greater consumer choice and improved patient satisfaction.
- 2. Greater efficiency in the allocation of health care resources as evidenced by reduced hospitalizations, fewer hospitals and beds, and reduced length of stay.
- 3. Increased utilization of and confidence in the primary care sector.
- 4. Higher quality of health care services.

### **ANNEX**

Table of Proposed Actions, Issues and Constraints, and Responsible Agencies, 1997-1999.

# Infectious Diseases Program in the Family Group Practices, Kazakhstan and Kyrgyzstan Health Care Reform Pilots July 1997-June 1998 Grace Hafner

Integration of the treatment of certain infectious diseases, including Acute Respiratory Infection, Childhood Diarrheal Diseases, Tuberculosis, Immunizations, and Sexually Transmitted Diseases, into the primary health care system is a logical step in development of the Family Group Practice as the vehicle for the delivery of primary health care. As part of this effort, USAID provided special funds to the ZdravReform Program for Kazakhstan and Kyrgyzstan beginning in July 1997.

Infectious diseases in children, particularly ARI and CDD, are responsible for a significant proportion of the overall burden of diseases and are among the primary causes of death in children under the age of five. Modern treatment protocols developed by BASICS (based on WHO material) for ARI/CDD were introduced to Zhezkazgan City region. The training was directed primarily towards family group practitioners. The rationale is to decrease referrals to the hospitals in order to generate cost savings. Additionally, proper prescription of simple basic antibiotics and oral rehydration salts, rather than the current tendency to use expensive broad spectrum antibiotics and multiple drug regimens, will also be more cost-efficient with reliable clinical outcomes.

It is important to collaborate with the Committee of Health's Maternal Child Health Department, the National ARI/CDD Coordinators, and local Oblast Health Departments. Other donor/collaborators include: UNICEF, WHO, CDC, BASICS, World Bank.

Activities included Designation and Training of Oblast Master Trainer; Selection and Outfitting of Training Site; Creating a Detailed Training Scheme; Procurement of Training materials; Roll-out of Trainings; and Training of all Family Doctors

In June 1997 the Committee of Health was sought in selecting an oblast for an expanded ARI/CDD program, using the BASICS material with USAID's ZdravReform Program providing the training support. The ZdravReform Program gained the necessary local health department support and support from the local academics. Natalia Dyuzembaeva, who attended the WHO/BASICS clinical course in Fergana and received WHO certification as a master trainer for CDD, was chosen as Master Trainer for Karaganda Oblast. She trained four trainers in Karaganda City, including one from Zhezkazgan (Zhanna Kopeeva).

In December 1997, Dr. Dyuzembaeva and Dr. Kopeeva were sponsored by USAID's ZdravReform Program to attend the WHO/ARI Master Trainer course in Semipalatinsk, after which they were expected to continue training activities. Dr. Kopeeva, however, was not a full-time trainer. National Trainer Svetlana Zhakisheva trained 8 trainers and 14 family physicians, and Dr. Kopeeva trained 17 family physicians, for a total of 1 master trainer, 8 trainers, and 31 participants in Zhezkazgan.

The Karaganda Medical Academy has begun a retraining program, using a family medicine curriculum. Approximately four hours is devoted to ARI, and CDD is part of a twelve hour section on childhood infectious diseases.

The results showed that in the Zhezkazgan region there was a slight decrease in children's mortality from 25.8% in 1996 to 24.1% in 1997, with a significant reduction in Zhezkazgan city, from 20.8% in 1996 to 16.8% in 1997. The first cause of mortality was perinatal problems, the second cause was respiratory problems, with infectious and parasitic diseases in fourth place. There was a decrease in mortality of ARI/CDD from 47 children in 1996 to 24 children in 1997. 26.4% (230 out of 874) of children bypassed the primary care system and went directly to the hospital. It was estimated that 17.8% treated in the primary care system were not treated effectively.

Over 45,000 brochures in Russian, Kazakh, and Kyrgyz were printed and distributed in Zhezkazgan, Karaganda, and Issyk-Kul. In the Karaganda Oblast, information on ARI and pneumonia danger signs was disseminated to the public in the form of newspaper articles, radio programs, TV presentations, posters, lectures in schools and other facilities.

Training centers in Karaganda and Karakol were supplied with a television, VCR and slide projector; and the training center in Zhezkazgan was supplied with slides. Large amounts of diarrheal and ARI schemes were provided for all doctors and FGPs in the area, as well as feldsher points.

The lack of free drugs is a continuous problem. While UNICEF had given enough oral rehydration packets in 1995 to last into 1998, there were insufficient free antibiotics. Antibiotics in general are very expensive. For example, a bottle of Bactrim (an antibiotic used to treat ARI) costs \$3.33, which may be difficult for families to afford.

Without the sponsorship of USAID and other donor agencies, the ARI/CDD program would likely not exist. During these increasingly difficult transitional times, it seems important that our work towards improving children's health continue and even be increased. Our assistance in continuing to support training should be ongoing. Our assistance in soliciting donations of drugs should also be considered. The health departments need to be more active in supporting the trainers, paying close attention to the training results, and giving public support to the ARI/CDD efforts.

Additional activities and plans of the Tuberculosis Program and Infectious Diseases Program (including Sexually Transmitted Diseases) in Kazakhstan and Kyrgyzstan are outlined in the full text.

# Review of Family Group Practice Activities in Zhezkazgan for 1997 January 1, 1998 (Russian, English) A. K. Makenbaeva

#### Introduction

The primary care health sector in Zhezkazgan is provided by nine private Family Group Practices:

- N 1- Bekseitova N.- 7, Chekhov Street
  - 2- Koshumbaeva K.- 68, Gagarin Street
  - 3- Makenbaeva A.- 61a, Satpaev Street
  - 4- Baimenova D.- 1, Anarkulov Street
  - 5- Almenbetova B.- 47, Sovatskaya Street
- 6- Abildinova A.- 91, Abay Street
- 7- Abzalova R.- 9, Pirogov Street
- 8- Tilman V.V.- 30 let Pobedy Street
- 9- Abilova K.Kh.- Kengir village

Tilman's Family Group Practice (No. 8) was established in August, 1995. Koshumbaeva's FGP (No. 2) and Abildinova's FGP (No. 6) were established as private structures in February 1997. The remaining FGPs were privatized in accordance with the State Privatization program in June-August 1997. During the free enrollment campaign held in December 1997, 75.9% of the population chose their family physician.

All FGPs work under contracts with the MHIF. Funding is based on a capitation rate. They are in the process of preparing for partial fundholding.

### Logistics

The logistics for FGPs were created in 1997 with the support of the Health Department. Each FGP is equipped with an electrocardiogram machine, a clinical lab, a physioroom, a vaccination room, a treatment room, an obstetrician-gynecologist room, and physicians' visit rooms.

All FGPs are members of the City Association established in October, 1996.

In 1997 the Association was awarded a grant by the Soros Foundation in the amount of \$24,000. This grant was allocated for obtaining medical equipment. Seven of the nine FGPs have computers. Two have acquired them by using grants and five bought them with their own funds.

#### Personnel

The FGPs of Zhezkazgan have 185 workers: 56 physicians and 85 middle medical personnel.

For the professional training of family physicians, a continuous postgraduate training program for physicians and nurses was created. The physicians are trained through travel cycles and seminars. Middle staff is trained in the medical colleges.

*Monitoring of FGPs* 

In 1997 there were 7, 254 visits to physicians. The work load in each FGP is 26 patients a day and approximately 6.4 per hour. The number of referrals to specialists is regulated by a co-payment from the patients. The hospital admission level is decreasing. The number of referrals to emergency services decreased by 12%.

# FGP Funding

Each FGP has a business plan and monthly financial reports. Corrections to the business plans were added after privatization and completion of investment programs. Plans for 1998 are approved, the priorities are defined and measures are being taken to fulfill them.

#### **ANNEXES**

- Table 1 Population of Zhezkazgan enrolled in Family Group Practices
- Table 2 Population of Children in Zhezkazgan per FGP
- Table 3 Personnel in Family Group Practices
- Table 4 Adults Referred to Outpatient Specialties
- Table 5 Monitoring of Outpatients in Children's Facilities for 1997
- Table 6 Analysis of Physicians' Visits to Children's Facilities for 1997
- Table 7 Results of Children's Physical Examinations for 1997
- Table 8 Analysis of Cash Expenditures for Medical Facilities working under the MHIF

# Laboratory Services for Family Group Practice Ambulatories in Zhezkazgan and Satpaeva Cities, Karaganda Oblast, Kazakhstan March 8-13, 1998 Amanda Cooper

The **OBJECTIVES** of this consultancy were to assess the laboratory services for FGP Ambulatories in Zhezkazgan city and in Satpaev; and to observe and assess laboratory methods carried out in an ambulatory laboratory.

In Zhezkazgan there are nine FGPs, and in Satpaev there are seven FGPs. In order to provide more comprehensive and convenient health services, each of the FGPs in Zhezkazgan has set up its own laboratory. In Satpaev, however, none of the FGPs has its own laboratory, and tests are carried out at the only general outpatient laboratory.

# The following **FINDINGS** were reported:

Outpatient Laboratory Services in Zhezkazgan City. In Zhezkazgan, all ambulatory laboratories offer basic blood and urine analyses as well as a few other tests such as vaginal smear examination. In addition, stool examinations are carried out for screening school children for E. vermicularis (pinworm). Four of the nine laboratories do biochemistry, with some of these laboratories providing biochemical tests only on certain days of the week in order to conserve reagents. The biochemical tests offered are liver tests since hepatitis is common (AST, ALT, Bilirubin, Thymol Turbidity Test). A test for Glucose is also available. Three laboratories include Creatinine tests. The Zhurek Cardiac Ambulatory Laboratory offers additional, more specialized tests for their cardiac patients, including Triglycerides, Betalipoprotein, Rheumafactor, and Iron. Because these tests are offered only at the Zhurek Laboratory, there is an arrangement with all the other private Ambulatories so that specimens can be referred there for testing. Examinations of Acid Fast Bacilli smears for tuberculosis are currently not performed, however laboratory staff have recently received training from the TB dispensary staff.

When surveyed, physicians at all ambulatories except one would like the laboratory to be able to provide a wider range of tests than what is currently available. In general, there is good cooperation between the ambulatories regarding referral of specimens to other ambulatory laboratories.

The two largest laboratories each have two laboratory technicians, while all the others have only one laboratory worker. The staff were recruited after one of the hospitals closed, and are overall knowledgeable, experienced, and well organized. They are well regarded by the physicians. They continue to be enthusiastic and positive despite having to work with old equipment and supply shortages. All laboratories are clean, neat, and tidy with equipment and supplies stored appropriately, and all solutions and stains are clearly labeled. The amount and standard of equipment varies, however. Some labs do not have a distillator and get their water from the Zhezkazgan regional hospital. General equipment and supplies are limited or lacking. Broken test tubes and glassware are used daily in

nearly all laboratories. Basic supplies such as pH paper for testing urine specimens and coverslips for microscope work have run out or are not provided.

Additional outpatient laboratory services are provided by the Sanitation and Epidemiological Station, the TB Dispensary, the HIV/AIDS Center (which provides screening and diagnosis of HIV and Hepatitis B), the Venerology and Dermatology Hospital, the Diagnostic Center in the Regional Hospital, and the Specialist Polyclinic.

Assessment of laboratory methods revealed that standard methods are used for blood specimens, including total and differential counts, measurement of hemoglobin, and measurement of the Erythrocyte Sedimentation Rate. For screening school children for pinworm, the staff prepare penicillin bottles with cotton specimen collection sticks which they give to the school nurse who is responsible for specimen collection. As microscope slides are in short supply, 10 specimens are usually placed on one large, homemade slide for microscopic examination. In addition, no coverslips are available as they were all broken long ago. Urine tests are carried out in a separate room as required but tend to be approximate rather than particularly accurate. A visual estimate of the volume is made, the color is recorded, and the density is measured with a urinometer. The urine pH is estimated by adding a drop of methylene blue stain to the urine. This method is not very reliable, and a recommendation was made to use pH paper. When urine is centrifuged, different sized test tubes were often used, many were broken, and there was no attempt to balance the centrifuge. Biochemical tests are performed using commercial test kits.

Outpatient Laboratory Services in Satpaev. In Satpaev, all the physicians interviewed said that they wanted a small laboratory on their premises. They claim that the Satpaev Laboratory is too far away and inconvenient. In general they assume the laboratory is good, however they do not know for sure whether it is reliable since there is nowhere else in the city to send specimens for a second opinion. If the results are far outside the normal range or they think the test should be repeated for confirmation, the laboratory staff will contact the physician.

The Satpaev Laboratory consists of three laboratory physicians and 15 laboratory workers. They provide an extensive range of tests, including biochemistry, parasitology, serology, and bacteriology. The laboratory is well organized, and staff rotate through the different specialties each month. The staff are knowledgeable and clearly understand the methods they are using.

*Discussion*. The staff at each ambulatory in Zhezkazgan city and Satpaev expressed interest in obtaining a laboratory on their own premises as this would be under their control and easily accessible for patients. They also recognize the future financial benefits of not having to send specimens to other laboratories which must be paid for their services. Funding may be a problem, however, as equipment for biochemistry is relatively expensive. In the past, physicians were able to set up laboratories by obtaining laboratory equipment either for free or by purchasing the equipment cheaply from hospitals which were closing. If more laboratories are to be set up or the present ones expanded, however, funds will need to be allocated to buy new equipment.

Unfortunately, there has been a general tendency for physicians to allocate funds to increase the range of laboratory tests offered, and little or no attention has been paid to the need of funds for replacing broken and worn out equipment and for adequate supplies of basic items. In all laboratories broken test tubes and other glassware are used every day. Occasionally one pair of gloves is available, but most of the staff work without wearing gloves. Most basic laboratory tests are performed using standard techniques and methods, however modification of a few methods could improve the reliability of results. Provision of basic supplies, such as microscope slides, coverslips, and test tubes, would facilitate work.

The Satpaeva Laboratory provides a reliable laboratory service, but the ambulatory physicians claim that it is not very accessible since it is not close by. As mentioned previously, the physicians would instead prefer their own laboratories and consider this to be a more cost effective system than sending specimens to other labs and paying for their services. However, no one mentioned the possibility of instituting a mobile specimen pickup service.

# The proposed **FUTURE ACTIVITIES** outline the need to:

- Continue to assess the laboratory methods and suggest possible changes or improvements
- Develop a list of basic tests for each FGP with a complimentary equipment and supply list
- Develop a more comprehensive list of tests including biochemistry, and an equipment and supply list
- Discuss improved laboratory safety with laboratory and clinical specialists
- Estimate laboratory test costs after setting criteria for cost calculations
- Initiate discussions about the role of FGP laboratories for primary care, with specific emphasis on whether screening tests are to be provided.

# Reform of Primary Health Care in Kazakhstan and the Effects on Primary Health Care Worker Motivation: The Case of Zhezkazgan Region September 1, 1998 R. Abzalova and C. Wickham

The government's health reform strategy has had variable effects on the motivation of primary health care providers. In some sites in the country, primary care providers have demonstrated a new level of motivation and professionalism that has had a visible impact on the communities they serve. In other sites, the impact of the health reform strategy on primary health care worker motivation has been less clear. This paper will describe the primary health care reform strategy in the former Zhezkazgan oblast, a site that has exhibited the most dramatic change in the level of motivation of primary health care workers, and draw some conclusions about those elements of the reform package that had the greatest impact on improving the motivation and performance of health workers.

Prior to the introduction of health reform, the health care system in Kazakhstan followed the typical Soviet model. Urban primary care was provided through polyclinics, which had a wide range of narrow specialists as well as primary care physicians. Under the former system, primary care facilities were not recognized as independent legal entities and their budgets were managed by polyclinics and hospitals. Primary health care received less than 15 percent of overall health care budgets. Health care workers were not accountable to the population, as individuals did not have the right to choose their health care provider and had little recourse for poor service. Physicians received their positions through personal connections. Although negative feedback and punishments were more common than acknowledgement and praise, there was no real threat of job loss for poor performance. Salaries of health care workers were strictly controlled by a national salary schedule that linked salaries to type of position, educational level, and years of experience. Health worker compensation was completely independent of performance. Health care workers therefore had no economic incentive to improve their performance, increase the satisfaction of their patients, or acquire new knowledge and skills. Although a twenty percent premium was added to the salary of polyclinic catchment physicians to encourage new physicians to enter primary care, it was still often more lucrative to work as a specialist because specialists were able to supplement their salaries by working night shifts in hospitals or with unofficial side payments, a practice that was considered unethical in the primary care setting.

Additionally, the administrative controls and criteria used to evaluate health provider performance greatly have inhibited professional motivation. The tight administrative controls combined with the depletion of supplies and other resources resulted in a deprofessionalized and unmotivated primary health care labor force that found it easier and less risky to simply refer patients on to a higher level facility than to treat them. Primary health care providers thus became disinterested dispatchers in the health care system. The financial crisis that has rippled through the social sector since the collapse of the Soviet Union has also had a devastating effect on the morale and commitment of health care

workers in Kazakhstan. Health care workers often wait long periods, up to seven months, without receiving salaries.

The health reform program in Zhezkazgan, however, has had a profound impact on worker motivation in several different ways.

# A. Changes in the Organizational Support System

- 1. <u>Privatization in Primary Care</u>. The privatization of all primary care practices in the urban areas was the most important organizational change in primary care. This was seen as the most expeditious way to give primary care providers an economic interest in their work, which may be the primary source of increased motivation for providers. There is now an opportunity to break free from the rigid, extremely low salary structure of government polyclinics. The head physicians now have greater authority to establish their teams and motivate the team members. The motivational effects on the staff may be driven by the new financial incentives and job insecurity, but also partially by the effect of being part of a team with clearer values and goals.
- 2. New Provider Payment Systems. With the introduction of a per capita payment system for primary care in 1996, the FGPs were allowed to reinvest savings they generate through greater efficiency to improve the material base and quality of their practices or provide salary bonuses. These changes provide obvious financial incentives for primary health workers to work differently to increase productivity and efficiency. They also have greater authority to reallocate resources to develop new services and programs that meet the specific needs of their populations, and to reorganize their space and schedules to be more comfortable for patients. These new freedoms allow for increased creativity and professional judgement, which may have a motivating effect independent of the potential financial gain.
- 3. Level of financing. When per capita financing was first introduced in 1996, the FGPs received a real increase in financing. For the first time primary care providers could provide quality services to their populations and improve their personal economic situations. By 1997, all salary debts to health workers were cleared. The increased economic pressures of incentive-based payment systems, however, make the unreliable financing even more difficult for health care facilities, which is likely to have a negative effect on health worker motivation.
- 4. Open Enrollment. Patients are more informed about the health care system in general, and now have higher expectations of primary care providers. Patients and physicians now know that if patients are dissatisfied with their primary care provider, they can choose a new one during the next open enrollment, and under a capitated payment system, the money follows the patient. This transfer of some of the power in the doctor-patient relationship to the patient may have some effect on health worker motivation, beyond the obvious incentive to attract more patients for financial gain. Open enrollment results are made public, and a practice that does not attract many patients not only loses financing, but also professional status among its peers. There is now true competition between primary care providers, both for financing and prestige.

5. <u>Increased Professional Status of Primary Care.</u> The government health leadership focused attention and resources on primary care, and the population became more educated about and convinced of the special role that primary care providers play in their health care. For the first time, primary care is seen to provide the greatest opportunity for professional and financial growth. In addition, the newly formed family physicians' association has added to the prestige and professional support of primary care practitioners through its links to international organizations.

# B. Worker Experience of Outcomes

Internal analysis of performance creates some peer pressure and competition within the primary care staff that is likely to have a strong effect on motivation and the desire to perform well. The head physicians now have the authority to fire staff who are not performing effectively, which has introduced job insecurity into the health sector for the first time.

# C. Worker Capability

Health workers are now hired and retained on a competitive basis, and therefore professional qualifications and achievements are more valuable. Open enrollment has made the professional qualifications of each FGP public information, which increases the pressure on FGPs to maintain a highly qualified and skilled staff. The clinical training, as well as the finance and economics training, have not only increased the skill level of the primary health care workers, but has also helped them carve out a new role in the health care system. These physicians are now considered to be a new kind of health care provider with unique training and skills. Having a clearly defined role in the system and being adequately trained to fill that role is likely to have strong motivational effects on primary care physicians.

D. Communication Between the MOH and Health Workers about the Reform Program. In Kazakhstan, the government is fairly decentralized and local governments have significant power in the health sector. Thus, in oblasts such as Zhezkazgan with progressive leadership, health reform has moved much more quickly than at the national level. The national Ministry of Health has supported the Zhezkazgan reform movement in principle, but showed resistance to individual activities, such as closure of health facilities and privatization. Zhezkazgan obtained special status as a health reform demonstration site, which allowed the oblast to waive certain national level regulations and in general move reforms at a faster pace than the national MOH would have otherwise accepted.

Health workers' understanding of the reforms was a crucial element in the successful implementation. Involvement of primary care physicians in discussions of health sector restructuring was a completely new approach to policy development and decisionmaking. The family physicians' association was particularly active in policy discussions. Each step of the health reform process was explained to both health workers and the population.

Assessing the Impact of Reforms on Health Worker Behavior and Motivation.

In Zhezkazgan, there is evidence that there has been an overall positive effect of the health care reform package on primary health worker motivation. There seems to be an increased level of commitment and professionalism among primary care providers, and there have been observable changes in aggregate primary care sector performance that could not occur without motivated health care workers. In addition, the FGPs are providing services that are not required by their contracts with the government, and that do not directly generate additional revenue.

Although it was difficult and risky to start a new business, physicians for the first time believed that if they work harder today they will be better off tomorrow. Several physicians made great personal and financial sacrifices to embark on this new venture, selling personal assets, such as automobiles and land to obtain the capital to purchase a FGP. There is a new sense of pride in the appearance of the health facilities and the health workers themselves. The FGPs have all been remodelled, and head doctors have used their own resources to paint the rooms, hang curtains and install carpets. Many head physicians have brought furniture and other items from home to improve the appearance and comfort of the practices.

The motivational effects of reforms on health workers other than the head physicians are less clearly observable. Head physicians report anecdotally, however, that the overall level of motivation and performance of health workers on their staffs has improved. A primary source of motivation is the internal competition between health workers and the awarding of bonus payments to the best performing staff members.

#### Conclusion

The health reforms in Zhezkazgan were not designed with the explicit goal of increasing health worker motivation. The change in the overall organizational relationships and economic incentives in the health sector, however, clearly have had an impact on motivation through changes in the utilization of human resources, the level and form of compensation of health care workers, and job security in the health sector. Performance of health workers is evaluated more effectively and objectively with the help of new practice managers, and compensation and continued employment are directly linked to performance. Equally important as the changes in economic incentives may be the change in the level of professional status and autonomy that primary care practitioners have gained from the reforms. The increased visibility of performance and the accompanying peer pressure may have had effects on health worker motivation independent of financial incentives. Working as true family practitioners with a defined role in the health system and the communities they serve may have given the primary health workers a greater interest in their patients and increased motivation to serve them well.